POTATO
INDUSTRY REPORT
2015/2016






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CONTENTS



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IDENTITY, VISION, MISSION AND VALUES

IDENTITY

The identity of Potatoes South Africa (PSA) is symbolised by:

- The authority of the potato industry which, in particular, refers to the annual turnover of the industry, measured against the total agricultural turnover and which makes it a prominent role-player in agriculture and in the food value chain. In addition, potatoes constitute the biggest fresh vegetable crop in South Africa and represent more than 30% of the turnover of fresh produce markets.
- The solid character of potato producers, which is characteristic of high-risk takers who, at the same time, can cope with setbacks, remain optimistic and, most important of all, who are entrepreneurs, focussed on innovation and have solid values.
- The essence of the organisation is based on excellence in service delivery to all potato producers, as set out in its mission statement, as well as to all other role-players in the industry. The organisation aims to protect and promote the interests of potato producers in particular and the potato industry as a whole.
- The face of the organisation is representative of young, dynamic leadership, backed by passionate enthusiasm and the pursuance of stronger cohesion, as well as the ability to visualise the bigger agricultural picture and react to it with a clear vision, strong opinions, solid values, as well as the ability to establish a united front, representative of all role-players. The organisation's youthful character and approach create room for innovative thinking and proactive action – to the benefit of the potato industry as a whole. In addition, the organisation symbolises transparency, stability and sincerity in all its activities.

MISSION

To provide strategic support services to a dynamic industry, thereby enhancing the sustainability of potato producers in South Africa in the following way:

- Providing the industry with industry-strategic knowledge and management support.
  - Industry strategic research.
  - Industry strategic information (market information, production information, macro-economic information).
  - Knowledge transfer.
- To provide support services with regard to South Africa's potato consumption.
  - Market development support services.
  - Product promotion support services (e.g. consumer education, awareness creation, information sharing).
- To provide producer development support services.
  - Competency development (knowledge, skills, bursaries).
  - Technical support (best practice, advice, cultivar trials).
  - Industry structure maintenance support.
- To establish internal business excellence within PSA.
  - Business management and leadership through:
    - Business planning.
    - Corporate governance.
    - Organisational cultural development.
    - Business performance management.
    - Relationship management/communication between role-players.
  - Resource management.
    - Human resources management.
    - Financial management.
    - Secretariat.

The essence of PSA is based on excellence in service delivery to all potato producers, as set out in its mission statement, as well as to all other role-players in the industry. The organisation aims to protect and promote the interests of potato producers in particular and the potato industry as a whole.

VISION

Together towards excellence in the potato industry.

VALUES

PSA pursues excellence in the following ways:

- Being proactive in taking initiative; being innovative, creative, solution-driven and adaptable, as well as by taking charge and ownership, pursue continuous learning and by being development-oriented.
- Demonstrating integrity by being accountable, transparent, honest, ethical, trustworthy and loyal.
- Being objective by acting rationally, analytically, neutrally, impartially and factually, as well as paying attention to detail.
- Providing service excellence by being responsive, willing, taking timeous action, being punctual, productive, accountable, efficient, professional, respectable, disciplined and by following organised business practices, as well as being accessible, diligent, motivated, committed, hardworking, passionate and enthusiastic.
- Engaging in partnerships via collaboration, participation, involvement and team work.

REPORT OF THE
CHAIRPERSON
ERNST YZEL

In the past two decades, the potato industry underwent significant structural changes. The clearest indicators of change can be seen in the number of commercial potato producers. Just before the turn of the century there were nearly 2000 commercial producers. This number shrunk to less than 600. This occurrence is similar almost all over the world. Economies of scale is becoming increasingly important in potato production, especially seen from a production cost point of view. Since the costs to invest in the potato industry in terms of capital outlay, such as a packhouse, sorting machines and other potato production equipment amounts to several million Rands, potato producers are forced to sell larger volumes of potatoes to justify the initial investment costs.

Also on production level the quality of the product that ends up on the consumer's plate significantly increased and also changed. Through innovation the leading potato producers constantly raises the bar and other producers simply had to adapt accordingly to stay in business. Unfortunately potato production is severely influenced by climatic conditions, both in terms of quantity and quality. In 2016 we painfully experienced the effects of climate change through scorching heat and low rainfall on potato production. In early 2016, potato prices rose to the highest levels in history. This was the result of an under supply on the markets due to the unfavourable climate.

South African potato growers are really fortunate to still be able to have a truly free market system in the potato industry. This is mainly due to the fact that we have a fresh produce market system in place. Almost 50% of the potatoes traded on the fresh produce markets are distributed in the informal trade sector. This creates a fully dynamic functioning free market mechanism. When supply increases, the price immediately drops. On the other hand when the supply diminishes, the price immediately increases. In the potato industry, we probably have the most comprehensive information system - something that many other industries just dream about. Tongue in cheek, I want to make the comment that I sometimes hear from the potato industry that we may have too much information. Sometimes uncertainty in the markets open up great opportunities for role players.

For several years the potato industry has been using an average of only between 50,000 and 54,000 hectares for potato production. This represents less than 1% of the available arable land in South Africa. Despite this, the potato industry provides on primary farm level about 50 000 jobs. This represents nearly 10% of jobs in primary agriculture. Although there are many skilled workers working in the potato industry, the agricultural sector and especially the potato industry to a large extent serves as a safety net for unskilled workers, especially in rural areas. This is where the potato industry makes a huge difference in the lives of many rural communities. The potato industry as a whole is holding its breath on the issue of negotiations for a national minimum wage. Depending on the regions in which potatoes are grown and the extent to which conditions in these regions allows for mechanization, will determine the percentage of labour lost. In many cases, labour is producers' single biggest expenditure and an increased minimum wage will lead to further mechanization and even the ceasing of potato production.

In the past decade the potato industry was able to closely double the per capita consumption of potatoes. Urbanisation and changing consumption patterns as well as the versatility of the potato product has greatly contributed to this trend. This, coupled with the affordability of potatoes, will increase consumer demand for potatoes even further. It brings the entire potato industry facing major challenges to meet the consumers' demands and needs. There is no doubt in my mind that through continuous cooperation throughout the entire industry, we will grow from strength to strength. Together, we are working towards excellence.

Ernst Yzel
Chairperson

REPORT OF THE

CHIEF EXECUTIVE OFFICER

DR ANDRÉ JOOSTE

The 2015/2016 financial year was marked by the severe impact of the drought and extraordinary high temperatures which had a severe impact on the potato industry which led to the highest prices ever on fresh produce markets.

At primary level potatoes is the fifth largest sub-sector measured in terms of the gross value of agricultural production within the horticulture and cash crop sub-sectors. Furthermore, the primary potato sub-sector provides nearly 10% of jobs in the primary agricultural sector, and also earns foreign exchange through exports to neighboring countries. South Africa is also self-sufficient in fresh potatoes which are available for twelve months of the year, and it is also known that potatoes is one of the most efficient crops to convert water to affordable food. Despite the fact that prices of almost all foods increased over the first few months of 2016 due to the drought, potatoes still remained one of the most affordable foods. This was achieved by less than 600 potato growers on less than 1% of the land which is used for agricultural purposes. This is truly an exceptional achievement by South Africa's potato growers. Within the above context, it is therefore critical that potato production remains sustainable in South Africa.

2015 PSA CONGRESS

The 2015 PSA Congress's theme was "Changing challenges into opportunities in the South African potato industry." Our industry faces many challenges, over and above the normal day-to-day operational challenges at all levels of the industry.

During Congress it was made very clear that we must accept collective responsibility as an industry to ensure that future generations will benefit from our available resources.

The potential of the informal market sector with its extensive dimensions was again highlighted, and it has (or still has) the potential to serve as a pillar of the fresh produce industry. There are still many misconceptions about this market segment, and some of them were unraveled during the conference. However, it was clear that we still have much to learn to take full advantage of the potential offered by the informal sector. By only providing the platform for engagement to take place between sellers and buyers is no longer enough; we will increasingly have to think outside the box to address those challenges that are faced by the informal trade. Aspects such as safe and protective selling spaces, cost-effective transportation between the market and where the product is sold and the alignment with municipal by-laws with the needs of informal traders, are but a few of the many aspects that need unique solutions. It was re-emphasized that industry players must work together to find these solutions sooner rather than later.

Stephan Fourie from Potato Pride in the Eastern Free State was named the National Syngenta Potato Farmer of the Year and Craig MacFarlane from Loch Buighe KwaZulu-Natal as the Bayer CropScience Seed Grower of the Year (during the National Seed Growers Forum). The potato industry regards these two achievers with pride as leader producers.

Ernst Yzel was unanimously elected as chairperson of PSA for the next two years. He worked tirelessly to put the new constitution of PSA in place which was approved by Congress. This included provision for more representation by black producers on PSA's operational structures, namely Joseph Bantam (Western Cape), Siseko Vikilahle (Eastern Cape), Shadrack Mabuza (KwaZulu-Natal) and Gift Mafuleka (Gauteng).

This bold move is a clear sign of the potato producers' commitment to the future of this country (see Business Report: Table 3 for complete list of the Board).

WORLD POTATO CONGRESS 2015

A PSA contingent visited China in September 2015 to attend the 9th World Potato Congress in Yanqin County, Beijing, China. As the congress was also attended by representatives from countries that are part of the International Potato Group (South Africa, Canada, Great Brittan, New Zealand and Australia) the congress was also used for a meeting of the group to interact and share information.

The World Potato Congress and meeting of the International Potato Group was followed by a field trip to numerous potato related facilities to gain an insight into the Chinese potato industry.

Ms Immaculate Zinde, PSA Manager of Generic Product Promotion was invited as guest speaker at the World Potato Congress. The theme of her presentation was “Inspire, Inform, Educate – Potatoes, at the heart of Every South African Meal”.

The purpose of her presentation was to demonstrate strides made by PSA to create awareness about the biological attributes of potatoes in order to influence attitudes, shift perceptions, as well as inspire a love for South African potatoes as the preferred starch and vegetable.

The World Potato Congress provided a great opportunity for insight into the global potato market development trends. In particular the Chinese market and the development potential of emerging markets to drive growth for the international potato industry.

MARKET DEVELOPMENT AND GENERIC PRODUCT PROMOTION

According to the 2010/2011 Income and Spending Survey by Statistics SA, consumers spent on average 12.8% of their income on food and non-alcoholic beverages. Of this an average of 11% is spent on vegetables, of which potatoes constitutes approximately 40%.

Furthermore, the survey shows that consumers of all income levels spend approximately 10% of their disposable income to purchase starch products (potatoes, rice, bread, maize meal and pasta), on potatoes.

PSA will do its utmost best to expand the industry and obtain a larger share of the consumer rand. To achieve this, the organisation took a new direction as far as generic product promotion is concerned. Greater emphasis is now placed on radio and television as channels to inform consumers about potatoes as a nutritious, versatile and affordable food.

During the course of the past financial year, Market Development placed a strong focus on market access and to improve the empowerment of the channels through which potatoes are marketed including National Fresh Produce Markets, processing, retailing and exports. The availability of good quality potatoes is critical to ensure the growth of the sector. So, it is important that throughout the value chain, there is a thorough understanding of quality requirements and the cost as well as price implications thereof. PSA was therefore working hard to provide role-players with management options to support a higher quality realization on the markets.

"Greater emphasis is now placed on radio and television as channels to inform consumers about potatoes as a nutritious, versatile and affordable food."

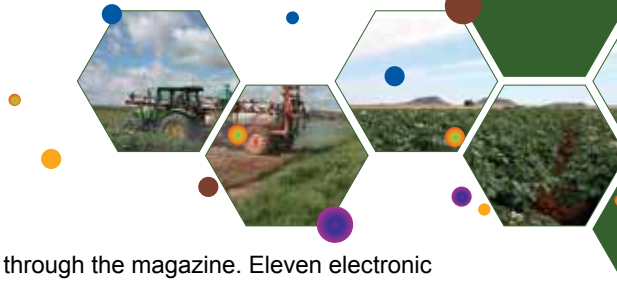
INDUSTRY INFORMATION

As already mentioned, the 2015/16 financial year was marked by severe drought and heat conditions. The estimated loss due to the drought and associated heat was around 30 million bags of potatoes. The fall in production has led to significant increases in prices (also in real terms). Through its ability to provide timely and relevant information, PSA could also inform policymakers and other institutions about the impact of the drought on the potato industry.

In the field of information and intelligence, increasing attention is given to issues such as packhouse efficiency and quality / prices, which is a great tool for producers to increase the efficiency of their farming businesses, as well as the establishment of information used to strategically position liaison with the government.

RESEARCH AND DEVELOPMENT

Research focuses constantly on finding solutions to producers' needs and to ensure the transmission of information by, for example, fact sheets about pests and diseases. The potato industry's research



is currently focused on the following aspects: cultivar evaluation to increase yields; soil health improvement and natural resource conservation; seed quality; virus and aphid control; water use and quality; cultivation / agronomy, especially fertilizer and storage management; management of soil-borne diseases (common scab, root-knot nematodes; powdery scab and soft rot) and management of potato tuber moth.

TRANSFORMATION

At the same time attention is also given to transformation needs and it was strategically decided to take on more hectares per emerging producer who participates in PSA's Enterprise Development Programme, rather than to annually take on more emerging producers. In short, the programme aims to establish sustainable emerging potato growers as commercial potato growers in the shortest possible time in partnership with other stakeholders in the potato value chain.

During the year under review, PSA focused on the following projects regarding transformation: Enterprise Development; Small Grower Development; Tertiary Skills Pipeline; Farm Based Training and the 4th biennial Transformation Symposium.

COMMUNICATION

In order to optimise liaison with stakeholders and the transfer of information, continuous updates are made on the website (www.potatoes.co.za). According to Government Notice No. R473 (published in the Gazette – 12 June 2015), issued by the Department of Agriculture, Forestry and Fisheries (DAFF), all potato producers must register with PSA (NPC) (the Administrator of the Statutory Measures). In this regard, the development of a client based relationship management system is progressing well and PSA has managed to capture almost all producers' registration forms on the system.

The CHIPS magazine - the only magazine for the potato industry – proved once again to be a paragon of excellence during the 2015/2016 financial year. Cosmetic changes were made to the layout of the magazine which elicited many compliments from readers. Individual articles published in CHIPS are downloadable from the website in PDF format. An additional feature was also added to the site where readers can browse electronically through the magazine. Eleven electronic newsletters were published during the year under review in which important information including the regular market commentary, was provided to the potato industry.

PSA has also used other communication mediums and platforms to convey information to stakeholders which included the 2014/2015 Potato Industry Report, News Flashes, continuous liaison with the media (including a successful Media Day) as well as focused emails.

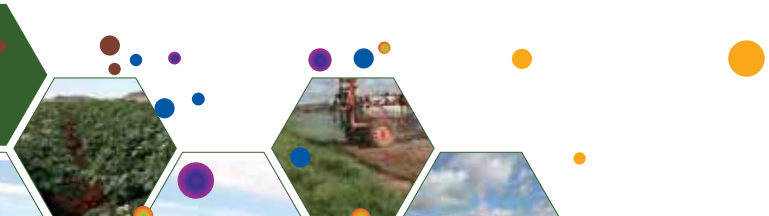
"The CHIPS magazine - the only magazine for the potato industry – proofed once again to be a paragon of excellence during the 2015/2016 financial year."

Effective two-way communication with government departments and institutions remains important to PSA. It is therefore constantly sought to expand such communication to the benefit of the potato producer and other stakeholders in the potato value chain.

PERSONNEL MATTERS

In the past financial year (2015/2016) the following staff movements took place:

- Mr James Sithole was appointed on 01 January 2016 in the post of Accountant after the post became vacant with the resignation of Ms Nicolette Basson on 31 October 2015.
- Ms Chantel du Raan assumed duty on 01 October 2015 after the post of Researcher in the Research and Development Core Business became vacant with the resignation of Ms Rene Carlson on 30 April 2015.
- Two of PSA's Regional Managers, Mr. Dániel Möller and Mr Jaco Botes who assumed duty in the previous year, respectively on 31 October 2014 and 30 June 2015, left the employment of the company. The Board of PSA decided to convert the first mentioned post into that of an Information Management Specialist. Ms Louise Swart took up office after being appointed on 1 July 2015 but resigned again on 15 April 2016. It was decided not to fill the post for the time being.
- Ms Enrike Verster was appointed on 01 November 2015 in the post of Regional Officer for the Gauteng and Mpumalanga production areas.



- Ms Audrey Masombuka resigned from the service of PSA on 24 June 2016 from the post of Administrative Officer in the Transformation Core Business. It was decided not to fill the post for the time being.

FINANCIAL MATTERS

On 30 June 2016 PSA ended off the first year of the fourth statutory period. Every year an amount in the form of bridging capital is transferred to the next year. This is simply done to continuously maintain a positive cash flow as the Potato Industry Development Trust (PIDT) continuously have a high debtors' book. This is the result of the inevitable time lag for bag manufacturers to recover the levy from their debtors (producers). The past year was also marked by the pressure of the drought and other climatic conditions on the volumes and therefore on the statutory levy income of PIDT.

Statutory income and expenditure

PSA Non-profit Company (NPC) as administrator collected R39 472 663 on behalf of the PIDT in statutory levies during the 2015/2016 financial year. This amounts to approximately 99.6% of all levies recovered that was invoiced by bag manufacturers. A further R54 589 in interest on investments was received.

The 2015/2016 budget of PSA (NPC) as approved by the PIDT amounted to R47 324 925 of which R39 799 974 was appropriated. The underspending of R7 524 951 (15.9%) was attributable to the continued savings interventions which were the result of proactive action taken by the Board of PSA and consists of incidental and intentional savings on operational costs and projects. There was reasonable savings on travel and accommodation costs, and especially on personnel costs in the light of the vacancies mentioned above which were not filled, as well as on other operational costs.

Capital in the PIDT transfer capital account started off with R7 581 795 as per Ministerial approval and amounted on 30 June 2016 to R7 182 955 and will be transferred to the 2016/2017 financial year. As set out in Table 1, with the exception of Administration (10.23%), PSA (NPC) managed to meet the prescripts given by the Minister of Agriculture, Forestry and Fisheries. According to a PSA Congress decision, equal funds had to be allocated to the two Core Businesses Research and Development and Market Development and Generic Product Promotion. The decision was taken that a ratio of about 60%:40% between operational and project costs should be maintained. Due to the fact that some of the project costs were transferred to the next financial year (2016/2017), the percentage Administration costs was higher than the permitted 10% and the ratio between operational costs and projects (60%:40%) was not achieved.

The expenses of approximately R40.0 million was utilized as follows (rounded off, refer to Table 1):

Table 1: Expenses PSA (NPC)

Research and Development	27.13%
Industry Information / Services	18.28%
Marketing	24.00%
Transformation	20.36%
Management	10.23%

INCOME FROM OWN RESERVES

PSA (Voluntary) own funds are mainly supplemented by the following:

- Return on investment: R730 776
- Rent received on capital items: R558 240

Additional funds received include R100 000 which was generated by the hosting of the Transformation Symposium, R437 095 by the hosting of the Potato Research Symposium and R1 783 500 by the biennial PSA Congress (2015). The Symposiums and Congress were partly funded from existing reserves (R425 749) as well as additional income during the year under review, as mentioned above.

Total funds and reserves amounted to R10 838 948. Property and movable assets, based on book value amounted to R481 673 and investments and loans to R9 260 578.

FINANCIAL POSITION

I am proud to say that the financial position of PSA is still healthy to the core. The pressure due to the decrease in revenue is fully absorbed by curtailing the expenditure side. Tally and control measures are continuously reviewed and tightened to restrain operational costs and thereby ensuring a healthy balance between operational costs and the appropriation in respect of projects. The PIDT accepted the audit reports by KPMG. KPMG as well as Fourie & Botha issued an unqualified report in

respect of PSA (NPC) and PSA (Voluntary), irrespectively. No audit misstatements were identified during the audit.

PSA has been retained by the PIDT as administrator to manage the statutory measures which includes the collection and management of the statutory levies. As part of its managerial responsibilities, PSA is also responsible for the implementation and management of the core business projects accepted by PSA's Board of Directors and approved by the PIDT.

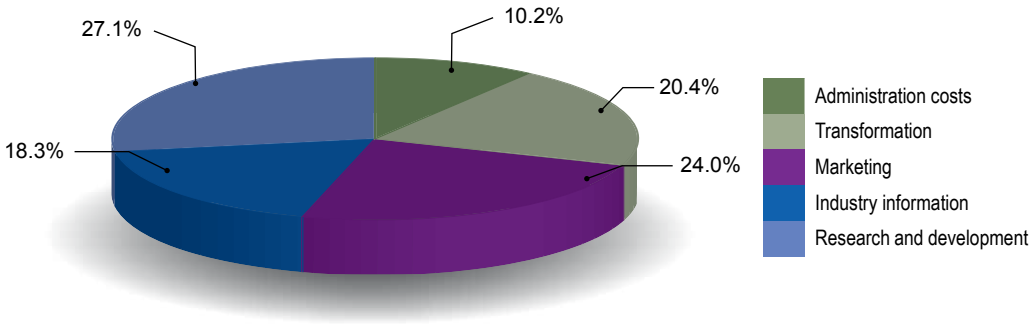


Figure 1: PIDT Appropriation of funds

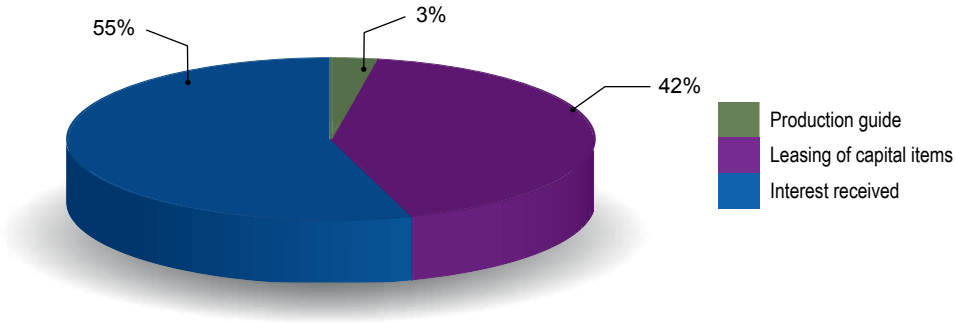


Figure 2: Income PSA (Voluntary)

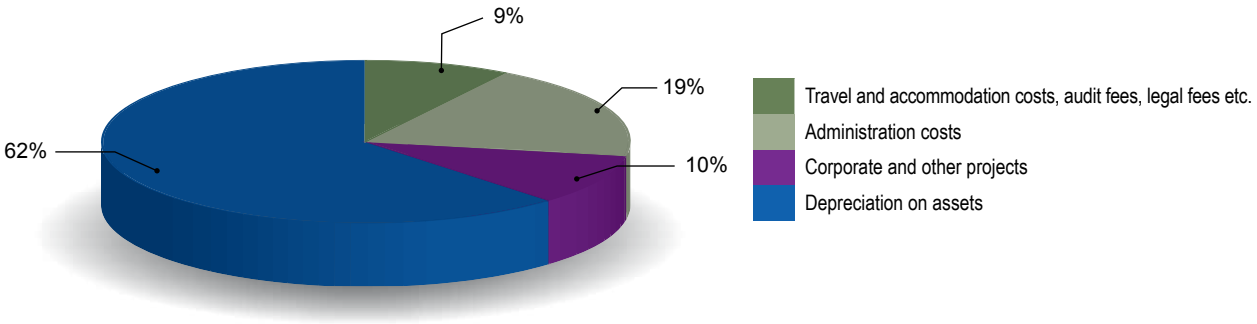


Figure 3: Expenditure PSA (Voluntary)

SECRETARIAL SERVICES

PSA has an extensive industry-focused committee/ forum system in place to ensure that the input and interests of the industry is reflected in decision-making. The meetings that took place during the year are set out in Table 2.

Table 2: Meetings

MEETINGS	NUMBER
Boards	
Potatoes South Africa	3
Potato House	2
Potatoes South Africa Committees	
Management Committee	3
Marketing Committee	3
Information Committee	3
Research Committee	3
Transformation Committee	3
Audit Committee	3
Human Resources Committee	3
Potato Industry Development Trust and Committees	
Trust	3
Risk and Audit Committee	3
Bursary Committee	2
Forums	
Potato Industry Forum	2
Seed Potato Growers' Forum	1
Seed Potato Traders Forum	1
Potatoes South Africa Symposiums	
Transformation Forum	1
Potato Research Symposium	1
Marketing Symposium	1
MEETINGS	**NUMBER**
Other	
Potato Industry Forum Steering Committee	1
Induction Programs	
Bursary Students Induction Programme	1
Enterprise Development Farmers Induction Programme	1

IN CONCLUSION

I want to thank the PIDT, the Board of PSA, our potato producers, role-players in the various forums as well as the staff of PSA for continued commitment to help make the industry sustainable, despite a year in which we have experienced extreme drought and heat. It was a privilege to interact with you and to jointly formulate solutions to the many challenges facing the industry. I also trust that the restructuring of the Board is already making a positive contribution to the representation of all producers in all areas of production.

Mr Yzel, thank you for your continued leadership, commitment, support and passion for the potato industry. You are truly a commendable Chairperson!

André Jooste (PhD)

Chief Executive Officer

BUSINESS REPORT

HEIN OBERHOLZER
CHIEF FINANCIAL OFFICER

STRUCTURE

PSA is a non-profit company, incorporated in terms of the Companies Act, 2008 (Act No. 71 of 2008), established to serve, protect and promote the interests of the South African potato industry. It operates as an organisation with an integrated structure that comprises a network of industry-orientated forums and committees on which participating role-players and individuals have a seat. This structure ensures that the organisation executes its mandate to render a comprehensive service to the potato industry as a whole.

FINANCING

The activities of PSA are funded by a statutory levy on potatoes, held in the PIDT. As the appointed administrator, PSA collects the levy on behalf of the PIDT and applies to the PIDT for funds to finance its activities and administration. In accordance with the ministerial guidelines, the funds are appropriated as follows:

- Approximately 70% for the delivery of the core business functions (excluding transformation).
- Approximately 20% for the delivery of the transformation function.
- Not more that 10% for the delivery of the administrative function.

PSA also has own funds that are supplemented by sponsorships and combined project funding. These funds are used to fund projects and functions in the interest of potato producers in particular and the potato industry in general. Approval for the appropriation of such funds lies with the board of directors of PSA.

BOARD OF DIRECTORS

The PSA board of directors is representative of the potato producers in the 16 potato production regions, the seed potato growers and black enterprise development potato producers. During Congress (2015) the Board of Directors was restructured. The Board of Directors has been constituted as shown in Table 3 on next page.

The following representatives have resigned as Directors:

Mr J A (Johan) van Zyl (Eastern Free State)

Mr LA (Leon) Cass (Mpumalanga / Gauteng)

Mr H P (Henk) Jacobs (Southwestern Free State)

Mr PL (Peter) Ferreira (Eastern Cape)

Mr D (Danie) Kühn (North West)

Mr L (Leon) Rix (Western Cape)

Mr M J (Johan) van Greunen (Southern Cape)

Ms N M M M (Nonie) Mokose

In accordance with the company's Articles of Association, the chairperson of the Audit Committee shall be a non-executive, non-aligned, suitably qualified person. During the year under review, Mr J H du Plessis of the chartered accounting firm, Geyser and Du Plessis, again served as Chairperson of this committee.

Table 3: Board of Directors

NAME	POSITION	REPRESENTING
Mr G E (Ernst) Yzel	Chairperson	Independent / Non-Aligned
Mr J F (J F) van der Merwe	Vice-Chairperson	Western Region (Northwest Cape, Northern Cape, Western Free State, Southwestern Free State)
Mr B S (Bernhardt) du Toit	Director	Southern Region (Sandveld, Eastern Cape, Ceres, Southern Cape, South Western Cape)
Mr J P J (Jan) van Zyl	Director	Southern Region (Sandveld, Eastern Cape, Ceres, Southern Cape, South Western Cape)
Mr J A (Johan) van Zyl*	Director	Eastern Region (KwaZulu-Natal, Eastern Free State and North Eastern Cape)
Mr J R (Rudi) Heinlein	Director	Northern Region (Limpopo, Mpumalanga, Gauteng, Loskop Valley)
Mr W A (Wouter) van Amstel	Director	Northern Region (Limpopo, Mpumalanga, Gauteng, Loskop Valley)
Mr J A F (Johan) van den Heever	Director	Northern Region (Limpopo, Mpumalanga, Gauteng, Loskop Valley)
Mr M J (Mike) Green	Director	Eastern Region (KwaZulu-Natal, North Eastern Cape, Eastern Free State)
Mr A S (André) Coetzee	Director	Western Region (North Cape, Northern Cape, South West Free State, Western Free State)
Mr G A (Gary) Vorster	Director	Producers' Representative: Audit Committee
Mr L (Tiekie) de Kock	Director	Chairperson: National Seed Committee
Mr J (Joseph) Bantam	Director	Southern District (Western Cape, Sandveld, Ceres, Southern Cape, South Western Cape)
Mr T S (Siseko) Vikilahle	Director	South Eastern District (Northwest Cape, Eastern Cape)
Mr S (Shadrack) Mabuza	Director	Eastern District (KwaZulu-Natal)
Mr S G (Gift) Mafuleka	Director	Central District (Gauteng)

***Resigned during the year under review**

FORUMS AND COMMITTEES

PSA ensures representation across the potato supply chain by way of representation on industry-aligned forums and committees. This structure provides a platform for debate, discussion and decision-making, where all stakeholders can be heard. These forums and committees include the following:

Committees

- Management Committee
- Information Committee
- Research and Development Committee
- Marketing Committee
- Transformation Committee
- National Seed Potato Committee
- Potato Industry Forum Steering Committee

Forums

- Potato Industry Forum
- Processing Forum
- Seed Potato Traders Forum

PSA renders the necessary administrative and secretarial services to all forums and committees, with the exception of the National Seed Potato Committee and the Seed Potato Growers' Forum, as this service is rendered by Potato Certification Service.

ADMINISTRATION

Apart from two vacancies, on 30 June 2016 PSA had 28 full-time employed staff members of which 9 served at the six regional offices to ensure optimal service delivery to the industry. The services rendered are discussed at length in the core business reports.

The staff is led by an executive management, which consists of the Chief Executive Officer, Company Secretary and the Managers of the five core businesses and support services divisions as indicated in table below.

PERSONNEL STRUCTURE

Permanent:	28
Vacant:	2
Temporary	0
Total:	**30**

CHIEF EXECUTIVE OFFICER

(1) André Jooste (PhD)

PERSONAL ASSISTANT

(2) Monica van der Merwe

RESEARCH AND DEVELOPMENT

(3) Manager: Research & Development and Technology Transfer Dr Fienie Niederwieser

(4) Researcher Chantel du Raan

INDUSTRY INFORMATION

(5) Manager: Industry Information/ Economist Pieter van Zyl

(6) Knowledge Management Specialist (Vacant)

(7) Administrative Officer: Information Laryssa vd Merwe

MARKET DEVELOPMENT AND PRODUCT PROMOTION

(8) Manager: Market Development Rudolf Badenhorst

(9) Manager: Generic Product Promotion Immaculate Zinde

TRANSFORMATION

(10) Manager: Transformation Nomvula Xaba

(11) Transformation Coordinator Louis Pretorius

(12) Transformation Administrative Assistant (Vacant)

INDUSTRY SERVICES

(13) Regional Manager: Eastern Free State (dry land), Western Free State, KwaZulu-Natal Attie van den Berg

(14) Regional Manager: Limpopo Albert Boneschans

(15) Regional Manager:Sandveld, Eastern Cape, Ceres, Southern Cape, South Western Cape Terence Brown

(16) Regional Manager: Mpumalanga, Loskopvally, Gauteng Enrike Verster

(17) Regional Officer: Western Free State (irrigation), South Western Free State North West, Northern Cape Herman Haak

(18) Regional Secretary Chantal van Staden Pietermaritzburg

(19) Regional Secretary Santa Bronkhorst Bethlehem

FINANCES, ADMINISTRATION AND PERSONNEL

(20) Chief Financial Officer Hein Oberholzer

(21) Accountant Gert Kok

(22) Accountant James Sithole

(23) Senior Financial Officer Sue Gibson

(24) Receptionist Zodwa Mnisi

(25) Financial Officer Mari Munnick

(26) Financial Officer Michelle Hartze

(27) Financial Officer Monique vd Merwe

(28) Administrative Clerk Petrus Makhonjwa

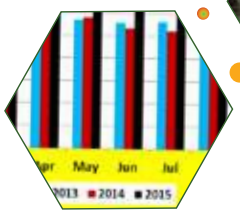
STRATEGIC COMMUNICATION

(29) Manager: Communication Hanrie Greebe

SECRETARIAT

(30) Company Secretary Elsabe Els

PIETER VAN ZYL



INDUSTRY INFORMATION

Market intelligence forms the backbone of decision-making and PSA is therefore constantly seeking to better align the sources and range of information with the needs of the industry. All workable and available communication channels are also used to make market intelligence available as soon as possible. Some of the channels used are the mobile phone's SMSs, WhatsApp messages, newsletters and the website.

During the financial year, greater emphasis was also placed on providing information to potato producers to facilitate decision-making.

KEY FOCUS AREAS

The Industry Information Department's core focus areas include:

FOCUS AREAS	COMPONENTS
Production and market information	• Market and marketing reports: Daily, weekly, monthly, seasonal and annual. • Regular harvest reports of 16 production regions. • Monthly market commentary. • Fresh produce markets: Trend analyses.
Production cost	• Updating of production costs: Largest regions. • Analysis of packaging and marketing costs. • Updating of price / output model (fresh versus processed potatoes). • Trend analysis. • Transport cost models. • Transport cost and related issues.
Agri Benchmark	• Updating of typical potato farms in each of the four major regions. • Comparisons of typical potato farms between countries. • Test "what if" scenarios on local, typical farms (farm level modelling).
Potato value chain analysis	• Determine the following indicators: Size of industry, per capita consumption, main varieties, consumer spending, etc.
Potato industry model	• To present an outlook of potato production for the coming years by using a certain set of assumptions. • By doing scenario analysis or using different sets of assumptions, a better understanding of the potato industry is generated.
Efficiency in the potato production process	Packhouse and marketing efficiency: Important indicators are calculated, compared and studied, to establish the following: • Packhouse efficiency (e.g. number of 10 kg bags packed per worker per day). • Investment in machinery and implements. • Market price analysis. • Weight loss over time. • Quality index for producers who send their produce to markets. Optimisation of energy and water consumption for potato production. The study was undertaken by doing several case studies in Limpopo. The following is important: • Test different scenarios' effect on energy costs. In the process, the respective co-workers' energy use efficiency was calculated and studied. • Water use efficiency was calculated and analysed. • Efficiency of the irrigation equipment was carried out for the respective co-workers.
Building and maintaining a database	PSA gathers all types of information on a daily, weekly, monthly, seasonal and annual basis. It is essential that all relevant information is collected, processed and distributed in an orderly manner. Relevant information is added to the database.
Ad hoc / other	Industry-related requests from the Competition Commission, SARS, etc.

The following activities were focused on, among others:

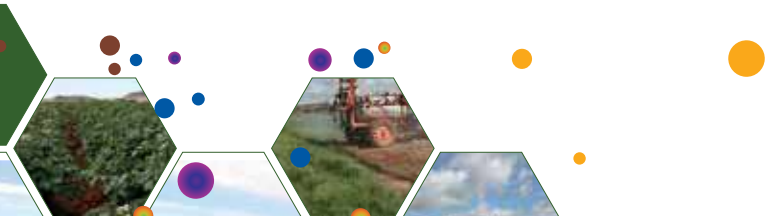
- A recent CHIPS article describes what might happen during the next 10 years in the potato industry. Projections generated by the Bureau of Food and Agricultural Policy's (BFAP) potato industry model, indicates that the hectares planted during the next 10 years will not increase significantly. Hectares planted should move sideways, but the size of the harvest should rise by half a million tons, which implies that the average yield will rise.
  - The said industry model is also used to test scenarios on typical potato farms (farm level modelling). Presentations were made to, inter alia, the Departments of Labour, and Water and Sanitation which indicated the effect of ongoing cost increases on the sustainability of potato production.
- Production costs for nine regions were updated. The total cost of some regions under irrigation, depending on the yields obtained, amounted to more than R200 000 per hectare. The analysis also shows that the total production cost of potato production is rising faster than inflation. A Transport Cost model has been developed that can be used as a benchmark for producers who use their own transport to market their produce. Transportation costs are the second or third largest single cost component for a potato producer. For both the production costs and transport costs of potato production, Excel spreadsheets were developed. Producers can capture their own data and compare their costs with benchmark figures.
- The packhouse and marketing efficiency study was conducted in four regions and finalised. This entails the following:
  - *Packhouse norms were developed*

    Labour efficiency and the level of mechanisation among others were investigated. A key indicator used is the average number of 10kg bags that one person handles daily in the packhouse. Labour costs in the packhouse alone amounted to between R5 000 and R10 000 per hectare, which indicates that labour must be used effectively. Mechanisation can replace labour, but the costs can be high. The question that is being raised is how effectively labour and capital (mechanisation) are implemented in the packhouse.
  - *Weight loss measurements were done*

    By law, a 10 kg bag must weigh a minimum of 10 kg, seven days after packing. Weight losses were measured and studied for the first time. In three regions, bags were weighed in pack-houses to measure the weight loss over time. Results show that producers in some of the regions have to weigh their bags at more than 10.5 kg in the pack-house in order to weigh a minimum of 10 kg, after seven days in the summer months.
  - *Market price analysis*

    Co-workers' market prices for Class 1 large-medium to medium potatoes were obtained from agents at the Johannesburg and Pretoria markets and analysed. Market prices were also compared with packhouse indicators, for example, labour efficiency and the level of mechanisation. Obviously, there is great variation between co-workers. Market agents were asked why co-workers have realised good/ bad average prices. Most producers who realised below average market prices, were not under the impression that they did not realise low prices. The analysis provides a benchmark against which producers can measure themselves.
  - *Quality Index for individual producers who supply markets (in progress)*

    This index will provide producers with a benchmark against which they can measure or compare themselves with other producers in the region. Several criteria have been developed to allocate a total score to each producer. The better the score, the better the producer performs. Producers can also clearly see their "weaknesses" and "strengths" in respect of their products on the market floor. Producers' total scores will, for instance, be affected if they deliver potatoes in wet bags to the market.
- A project entitled "Optimisation of energy and water consumption for potato production" has been completed. Results indicated that electricity costs per hectare of potatoes show large variations between farms. Producers' average electricity cost per irrigated hectare easily varies between R7 000 and R11 000 in a region. There are, of course, many reasons why the costs per hectare have so many variations. Case studies were carried out at



selected producers where the effectiveness of their pivots was measured (different criteria were used for this purpose). Reasons for poor performance were also identified. Analysis showed that the pump and irrigation of water can easily make up 70% of the total annual electricity bill. The water use efficiency of co-workers (kg potatoes marketed per mm of irrigation) was calculated and compared. A scenario analysis was done, using spreadsheet software, to see if co-workers' electricity costs per hectare can be reduced. Energy use efficiency was calculated for co-workers and analysed. Several role players were involved, including Eskom. The project was done in Limpopo, but will be rolled out to other regions.

INFORMATION COMMITTEE

The composition of the Information Committee is as follows:

NAME	POSITION	REPRESENTING
Mr Jan van Zyl	Chairperson	PSA (NPC) Board (Sandveld)
Mr Wouter van Amstel	Vice Chairperson	Limpopo
Mr Jan Genis	Member	Sandveld
Mr Charl Nel	Member	Western Free State
Mr Wessel Durandt	Member	Eastern Free State
Mr MC Venter	Member	Co-opted (Limpopo)
Mr Johan Holtzhausen	Member	Co-opted (Mpumalanga)

MARKET TRENDS

During the 2015 harvest year 53,933 hectares of potatoes were planted, which is about 2,500 hectares more than the previous year's plantings. The increase in hectares resulted in a harvest of 248 million 10 kg bags in 2015, which is almost 25 million 10 kg bags more than in 2014 (see Figure 5).

Note the large increase in crop size over the past decade, while the number of hectares planted almost moved sideways. This phenomenon can be attributed partly to the establishment of high-yielding cultivars and improved production practices.

Regarding the 2015 harvest year, the Limpopo production area planted most hectares, i.e. 11 383 hectares representing 21% of the total hectares planted (see Table 4). The Eastern Free State production region was second with 10,989 hectares (most plantings were on dry land), followed by the Sandveld and the Western Free State. The Limpopo production region also produced the largest crop; nearly 51 million 10kg bags amounting to 21% of the national harvest. The four major production areas have planted 69% of the total hectares and produced 66% of the national potato crop.

Table 4 also shows the average yields of the different regions. The average yield of the majority of regions fluctuated between 40 and 45 tons per hectare. Dry land production occurred mainly in the Eastern Free State and to a lesser extent in the Western Free State, which had an effect on the average yield of these regions.

The number of commercial potato producers (farming units) dropped to 566 in the 2015 harvest year. The number for 2010 was 690 producers. In contrast, 12% of all producers planted more than 200 hectares of potatoes each (Figure 6). This group of producers jointly planted 43% of all hectares. It is also clear that 46% of producers each planted less than 51 hectares of potatoes (Figure 6).

In Figure 7, it is clear that the formal market is the biggest outlet for South African potatoes. Slightly more than a third of the national crop is marketed by the formal marketing channel. On the other hand, the informal market takes up nearly a third of the potato harvest, namely 32%.

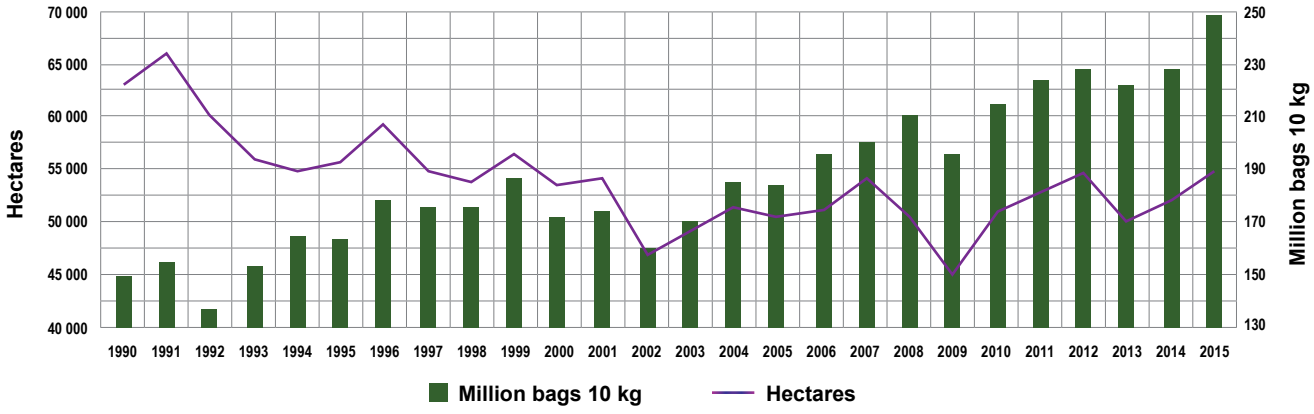


Figure 5: Hectares planted versus crop size

Table 4: Hectares planted per region.

	REGION	HECTARES	% OF HECTARES	CROP SIZE IN 10 KG BAGS	% OF CROP	AVERAGE YIELD IN TON/HA
1	Limpopo	11 383	21%	51 526 748	21%	45.3
2	Western Free State	7 084	13%	41 857 704	17%	59.1
3	Sandveld	7 525	14%	36 010 200	14%	47.9
4	Eastern Free State*	10 989	20%	35 682 519	14%	32.5
5	KwaZulu-Natal	3 216	6%	12 987 371	5%	40.4
6	Mpumalanga	2 301	4%	11 852 900	5%	51.5
7	North West	1 874	3%	11 242 594	5%	60.0
8	South Western Free State	1 392	3%	8 229 100	3%	59,1
9	Northern Cape	1 457	3%	8 063 378	3%	55.3
10	Loskop Valley	1 565	3%	7 459 600	3%	47.7
11	North Eastern Cape	1 595	3%	7 218 400	3%	45.3
12	Ceres	1 123	2%	5 639 079	2%	50.2
13	Eastern Cape	1 296	2%	4 923 500	2%	38.0
14	Gauteng	815	2%	4 702 500	2%	57.7
15	Southern Cape	256	0.5%	1 025 600	0.4%	40.1
16	South Western Cape	62	0.1%	243 500	0.1%	39.3
		53 933		**248 664 693**		**46.1**

* Dry land cultivation occurs

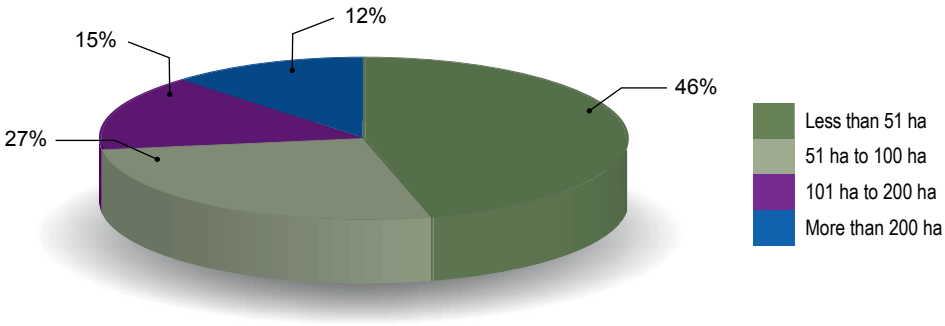


Figure 6: Percentage of producers versus size of planting in hectares (2015)

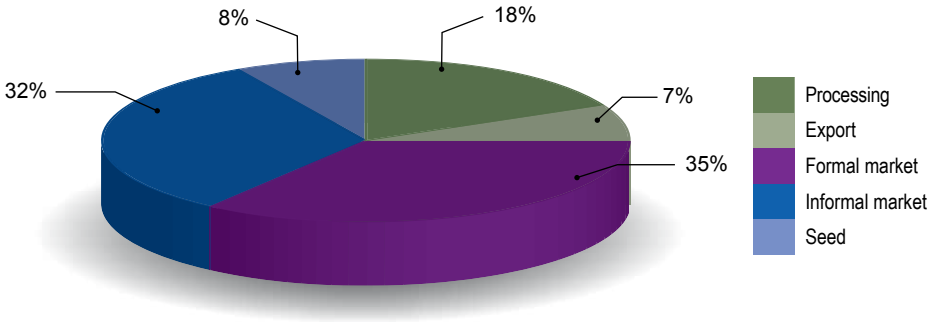


Figure 7: Distribution of total potato 2015 crop

RESEARCH & DEVELOPMENT

DR FIENIE NIEDERWIESER

The research strategy of the potato industry identified the following areas of research for 2014-2017:

- Cultivar evaluation to increase yield
- Soil health, soil improvement and resource conservation
- Quality of seed and ware potatoes
- Virus and aphid management
- Water use and quality
- Crop production: plant nutrition and volunteer control
- Management of soil-borne diseases: powdery scab, common scab, soft rot and nematode

Allocation of the budget to the different focus areas is as in Figure 8.

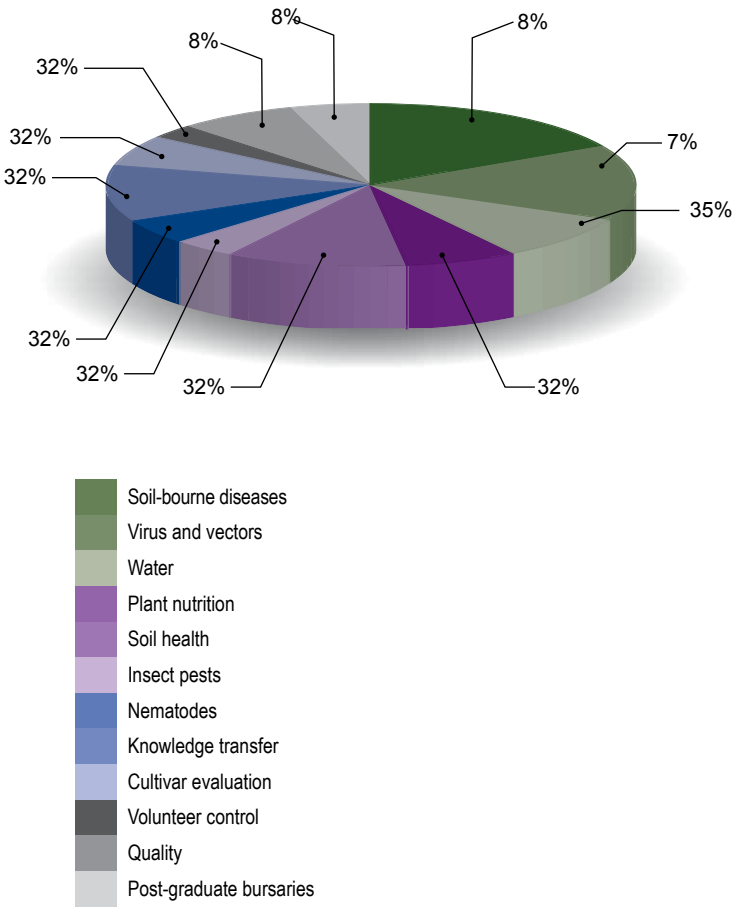


Figure 8: Budget allocation

RESEARCH COMMITTEE

The Research Committee is responsible to identify research priorities, to ensure that quality research is conducted and to recommend the research budget to the National Council for approval. The committee is supported by the PIDT Technical Advisory Committee and Potato Workgroup Chairpersons' Committee (refer to Tables 5, 6 and 7).

Table 5: Research Committee

MEMBER	POSITION	REPRESENTATION
JAF van den Heever	Chairperson	Loskop Valley, Mpumalanga and the Processing Committee
AS Coetzee	Vice-chairperson	South Western Free State, Northern Cape and North West
GF Bester	Member	Eastern Free State
GG Hill	Member	KwaZulu-Natal, North Eastern Cape and Seed Growers
A de Villiers	Member	Sandveld and Ceres
G Gadda	Member	Limpopo
L Rix	Member	South Western Cape, Southern Cape and Eastern Cape
PGJ Posthumus	Member	Western Free State and Seed Growers
Dr FI du Plooy	Member	PIDT Trustee

Table 6: PIDT Technical Advisory Committee

MEMBER	POSITION	SPECIALITY
Dr FI du Plooy	Member	PIDT Trustee
Dr FDN Denner	Member	Pathologist
JJ de V Bosman†	Member	Agronomist

Table 7: Potato Workgroup Chairpersons' Committee

MEMBER	POSITION	REPRESENTATION
AS Coetzee	Chair person	Research Committee
GF Bester	Member	Research Committee
Dr FI du Plooy	Member	PIDT: Technical Advisory Committee
I Oosthuizen	Member	Ceres Potato Workgroup
S Fourie	Member	Eastern Free State Potato Workgroup
R Cilliers	Member	Eastern Cape Potato Workgroup
R Buys	Member	KwaZulu-Natal Potato Workgroup
S Grobbelaar	Member	Limpopo Potato Workgroup
D Ras	Member	Loskop Valley Potato Workgroup
L Cass	Member	Mpumalanga Potato Workgroup
S Bell	Member	North Eastern Cape Potato Workgroup
J Steenkamp	Member	Northern Cape Potato Workgroup
P Brink	Member	Sandveld Potato Workgroup
J Hugo	Member	South Western Free State Potato Workgroup
I Cronje	Member	Western Free State Potato Workgroup

RESEARCH PARTNERS

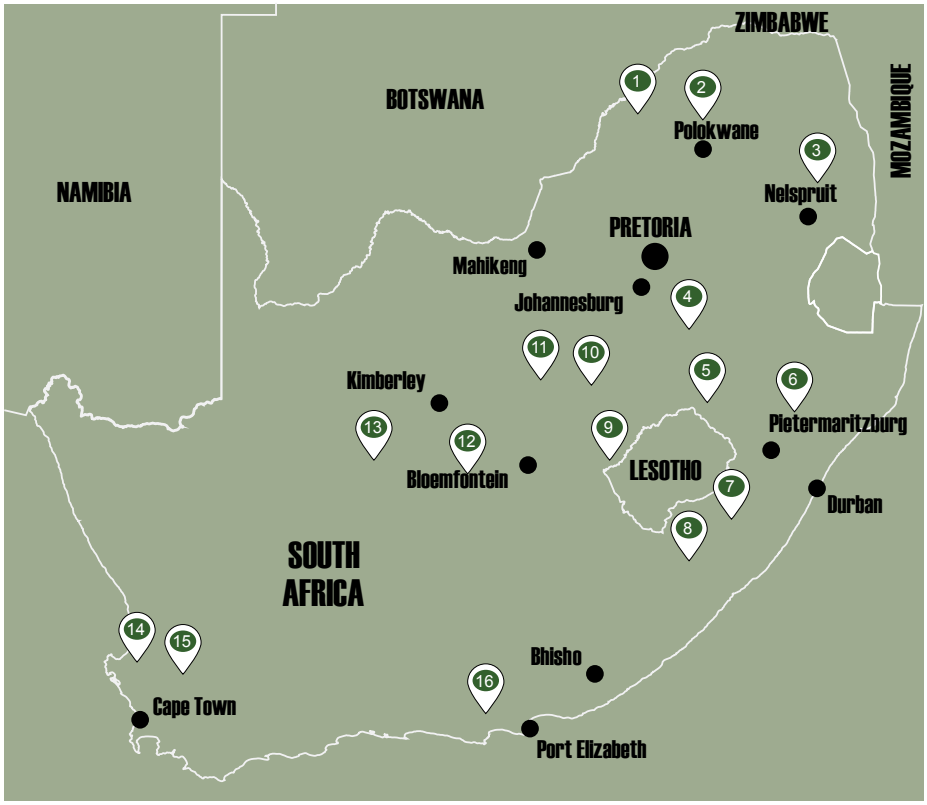
PSA has several professional research partners to conduct specific projects. Table 8 gives the research institutions and the projects they are responsible for. PSA is responsible for knowledge transfer projects.

Table 8: Research Partners and Projects

INSTITUTIONS	PROJECTS
Agricultural Research Council	• In vitro maintenance of open and one sub-licenced cultivars • Survey on insect pests on potatoes • Development of a diagnostic test for fissure scab, and evaluation of cultivars with reference to the disease • Study on integrated management of potato tuber moth by using pheromone lures • Study on integrated management of nematodes • Evaluation of the tolerance of popular cultivars against common scab
University of Pretoria	• Monitoring of virus vectors (plant aphids) • Development of a technique to identify virus infected aphids • Development of fertiliser guidelines for two popular cultivars • Determination of the water footprint of potatoes by using advanced technology • Evaluation of different crop rotation programmes in the Eastern Free State • Evaluation of the tolerance of popular cultivars to root-knot nematode • Evaluation of the tolerance of popular cultivars to soft rot pathogens • Evaluation of the tolerance of popular cultivars to the powdery scab pathogen *Spongospora subterranea* • Identification of alternative host plants of *Spongospora subterranea* • Effect of soil temperature and moisture on infection of potato by *Spongospora subterranea* • The effect of climate change on potato production in 10 potato production regions
Stellenbosch University	• Comparison of the pathogenicity of local isolates of PLRV (potato leafroll virus) to the European isolate. • The role of Calcium on yield and quality of potatoes • Identification of the most important factors affecting internal quality
Western Cape Department of Agriculture	• Investigation into the effect of climate on the activity and intensity of virus vectors in the winter rainfall region. • Conservation tillage in the Sandveld
Nelson Mandela Metropolitan University	• Effect of nitrogen topdressing on yield and quality of two cultivars
GEOSS	• Study on the water balance and the monitoring of ground water levels in the Sandveld
University of the Free State	• Management of volunteer potatoes

CULTIVAR EVALUATION BY POTATO WORK GROUPS

During the 2015/2016 financial year, 14 cultivar evaluation trials were conducted in 11 potato production regions as indicated in Figure 9. Two of the dry land trials in the Eastern Free State were not harvested as a result of the severe drought in the region.



1. Tom Burke
2. Polokwane
3. Marble Hall
4. Oranjeville
5. Warden (Dry land)
6. Weenen
7. Kokstad (Dry land)
8. Ugie
9. Marquard (Dry land)
10. Kroonstad (Dry land)
11. Bultfontein
12. Petrusburg
13. Douglas
14. Aurora
15. Ceres
16. Hankey

Figure 9: Cultivar Evaluation by Potato Work Groups

RESEARCH HIGHLIGHTS

Prof Martin Steyn (University of Pretoria), has been funded by the potato industry for many years for research on water use and irrigation scheduling. His expertise was recognised by the organising committee of the World Potato Congress and he was invited to present a keynote address in China in August 2015. His presentation was titled: Potato water productivity: current status and future prospects. He also won the Syngenta Best CHIPS Article prize in 2015 for his article Factors that influence water management.

The survey to determine the most important insect pests on potato in South Arica has been completed. Farmers in the production regions indicated that potato tuber moth and potato leaf miner are the most serious pests and that aphids as vectors of viruses and nematodes are the second and third most important pests. This information will guide the Research Committee to prioritise projects to address farmers' problems.

The first phase of the project "Conservation tillage in the Sandveld" has been completed. The objectives of the project are to improve soil health and to counteract the negative effects of wind erosion. Results indicate that tillage using rippers was more beneficial than conventional plough tillage in terms of the population of free-living nematodes, soil respiration and root depth. Yield data of four years was higher or equal to conventional tillage. In the next phase of the project the long term effects of the different tillage methods will be determined.

The project to determine the effect of calcium (Ca) on yield and quality of potatoes has been completed. Results indicated that it is of cardinal importance that enough plant available Ca is available during tuber initiation and for about four weeks thereafter. Ca that is applied too late in the season will probably have no beneficial effect. A poster that graphically demonstrates the multiple factors affecting Ca take-up by roots was developed to convey the knowledge to farmers.

As a result of a hypothesis that the isotate of the potato leafroll virus (PLRV) that occurs locally may be more virulent that the isolate occurring in Europe, a project was launched by Stellenbosch University to compare the two isolates. Results proved that the hypothesis was invalid. The reasons why PLRV is difficult to control in some seed potato production regions are probably as a result of virus pressure in the regions, inefficient aphid control and the presence of alternative host plants. A new fact sheet (Virus diseases and Aphids) has been compiled to assist farmers to control the disease.

The occurrence of bacterial wilt disease in plantings of ware potatoes early in 2015 was not identified in seed potatoes by routine laboratory tests. As a result the certification of several lots of seed potatoes was withdrawn. Great concern was expressed that the standard sample size of 4 605 tubers may be too small to identify low levels of *Ralstonia solanacearum* in seed potatoes. A computer simulation by the University of Pretoria proved that the standard sample was sufficient to identify 0.1% infection with a probability of 99% in plantings ranging from 1 to 80 ha. By taking a sample of 44 000 tubers the probability to identify low levels of infection can be increased. A new project to investigate the ability of *R. solanacearum* to survive in the soil and disinfection of implements was initiated. CHIPS articles and a new fact sheet (Bacterial wilt disease) were compiled to assist farmers to manage this devastating disease.

Research funded by the potato industry investigated some effects of the unusual high temperatures and drought of 2015/16 and steps were taken to address problems caused by the climate. Soil water levels of boreholes in the Sandveld have been monitored since 2005. Measurements early in 2016 showed that the water levels in the Sandveld (which was also impacted by the drought) did not drop in the majority of boreholes monitored in this project. This is probably a good indication that soil water withdrawal for potato production does not have a negative affect the soil water supply in the Sandveld.

The monitoring of the aphid population in seed potato production regions pointed to a relationship between aphids and climate. In the Sandveld populations were high even in cooler winter months as a result of the low rainfall in the region. In KwaZulu-Natal, the relatively high temperatures during winter resulted in earlier aphid flights than in years with cold winters. These observations are possible indications of an increase in aphid related problems as a result of climate change.

The negative effect of high temperature (>30°C) on tuber size was demonstrated in a number of potato workgroup trial reports. Small tubers were produced where a large number of days with temperatures >30°C occurred. Region specific courses in irrigation scheduling were presented to promote the effective use of available water resources. Workshops in pack house sanitation were also presented to enable farmers to better manage soft rot in unusually hot weather conditions.

KNOWLEDGE TRANSFER

Potato Research Symposium - 2015

The Potato Research Symposium (2015) was held on 26 and 27 July at Klein Kariba near Bela-Bela in the Limpopo Province. Scientists reported on the progress made on projects funded by the Potato Industry Development Trust and other institutions (31 presentations were made) whilst the Potato Workgroups reported on 20 cultivar trials that were carried out in 14 regions. Post-graduate students made seven presentations. Dr Pierre Nortjé gave an overview of research that was done over the years on bacterial wilt. Prof Martin Steyn delivered the talk that he presented at the World Potato Congress in China.

The Symposium was attended by 170 persons which included potato producers, input supplier representatives, students and researchers. Awards were made to the following persons: Prof Jacquie van der Waals received the award for the best research project presentation for her presentation Integrated management – the only option with powdery scab (best presentation by a researcher). Ms Chantel du Raan once again received the prize for the best student presentation for her presentation: Nitrogen management effects on tuber initiation of selected potato cultivars. Mr Pieter Brink (Chairperson: Sandveld Potato Workgroup) received an award for his report on the cultivar evaluation trial at Aurora in the Sandveld. The best potato workgroup represented was the Eastern Free State.

CHIPS-articles

During the year under review, 26 technical articles and 12 potato workgroup reports were published in CHIPS and all are available on the website (www.potatoes.co.za/research/chips-articles).

Final reports

Three final reports were completed and are available on the website (www.potatoes.co.za/research/final-reports)

1. Row spacing effects on drip irrigation
2. The validation of virus-specific real-time RT-PCR assays for commercial use in the potato industry
3. Fusarium dry rot in South Africa.

Courses and Workshops

1. Irrigation scheduling: The two-day course was presented eight times in 2015/2016 and was attended by 113 persons.
2. Sanitation in pack houses was presented three times and was attended by 20 persons.

Fact sheets

Four new fact sheets were compiled and the printed versions are available from PSA's head office and regional offices. It is also electronically available on PSA's website (www.potatoes.co.za/research/fact-sheets):

1. Physiological tuber disorders
2. Powdery scab
3. Internal quality
4. Virus diseases and plant aphids

A handbook "Responsible use of crop protection products" was compiled, and is available at PSA's head office and regional offices.

PROGRESS

See table below for a breakdown of project progress during the year under review.

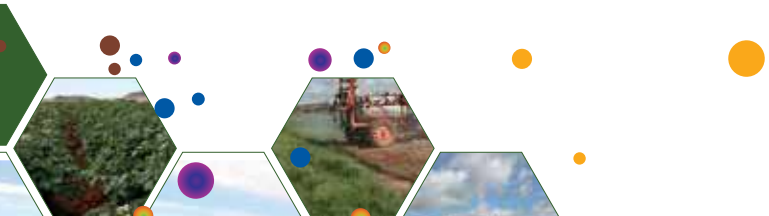
	PROJECT	OBJECTIVE	PROGRESS AND HIGHLIGHTS
CULTIVAR EVALUATION AND MAINTENANCE	In vitro maintenance of potato cultivars	• Maintenance of open-, and licenced ARC cultivars in vitro • To make nuclear material available to commercial tissue culture laboratories • Renewal of clones to prevent degeneration of nuclear material	• Eight cultivars were successfully maintained • In vitro virus-free nuclear material was supplied to 4 commercial laboratories • New clones of VanDerPlank, Up-to-date, BP1 en Mnandi were established • A quarantine service for the import of new clones and cultivars was offered to commercial companies • Maintenance of nuclear material for 9 local and 2 foreign companies
	Cultivar evaluation	• To support potato workgroups to perform cultivar evaluation trials, to analyse the data and to write reports	• Twenty cultivar evaluation trials were done in 14 regions. Two dry land trials were not harvested due to the drought • Results of cultivar evaluation trails of the previous season showed that the unusually high temperature of the previous season resulted in a lower yield and more medium and small potatoes than the previous year

PROGRESS CONTINUED

	PROJECT	OBJECTIVE	PROGRESS AND HIGHLIGHTS
SOIL HEALTH AND CONSERVATION	Conservation tillage methods in the Sandveld	• Development of guidelines for conservation tillage practices to combat the effect of wind erosion in the Sandveld • Evaluation of the effect of conservation tillage on yield, water use efficiency and the physical, chemical and biological status of soil • To determine the effect of conservation tillage on soil microbe populations and soil-borne diseases	• Significant differences between soil respiration and active carbon levels were observed for the fourth year, with the highest levels observed for the minimum tillage treatments • The plant parasitic nematodes were observed at significantly higher levels with the conventional tillage method • Soil penetrometer observation once again indicated that tillage method has an effect on soil density • The yield from plots with minimum tillage was not lower than for other tillage methods
	Crop rotation programme in the Eastern Free State	• To optimise crop rotation systems for the Eastern Free State with the aim of improving the soil health, soil-physical and chemical properties, as well as the profitability of potato production under dry land conditions	• Four rotation cycles of 5 years each were established with potatoes, maize, sugar beans, sunflower and soy beans. Maize was planted to all plots in the past season • *Fusarium solani* occurred commonly, while levels of *Rhoctonia solani*, was low • Baseline information regarding soil microbe populations as affected by maize, was obtained. The effect of different rotation crops will be measured in the following years
QUALITY	Development of a user-friendly method to test potatoes for suitability for the preparation of different potato dishes	• To determine how the culinary characteristics of potatoes are affected by climate and production methods • Development of a user-friendly method to test potatoes for suitability for the preparation of different potato dishes	• A user-friendly method was developed and will be tested extensively and adjusted if required
VIRUS AND VIRUS VECTORS	Management of potato leafroll virus in South Africa	• To determine whether the South African isolate of potato leafroll virus is more virulent than the European isolate	• Green house trials were performed and it was determined that the local isolate is not more virulent than the European one
	Aphid monitoring in five seed production regions	• To monitor aphid numbers in the Sandveld, Ceres, Northern Cape, Western Free State and KwaZulu-Natal to determine how aphid pressure is affected by climate • To be able to notify seed growers when aphid pressure increase so that they can act timeously	• Aphids were observed in winter for the first time in Koue Bokkeveld (Ceres). In January aphid numbers were normal • In the Sandveld, the relationship between the occurrence of rain and aphid numbers, was once again observed. The absence of good rainfall during the winter resulted in high numbers of aphids • The relatively warm winter in KwaZulu-Natal in 2015, resulted in high aphid numbers early in the season
WATER USAGE	Groundwater monitoring in the Sandveld	• To determine whether the use of bore hole water for potato production impacts on the groundwater level of in the Sandveld • To study the water balance of the Sandveld and to identify the source of the groundwater	• Monitoring at the beginning of 2016 showed that the water level of most boreholes did not change despite the severe drought in the region. This observation confirms that potato production in the Sandveld does not have a negative impact on the groundwater levels in the Sandveld

PROGRESS CONTINUED

	PROJECT	OBJECTIVE	PROGRESS AND HIGHLIGHTS
PRODUCTION METHODS AND FERTILISATION	Effect of Ca nutrition on potato production in South Africa	• To determine the effect of Ca in irrigation water in yield and quality of potatoes	• Different cultivars respond differently to Ca nutrition • Temperature of approximately 18 – 20°C appears to be optimal for Ca-content of tubers and at higher temperatures, the Ca content is lower
	Volunteer control	• To test different herbicides for their effectivity of pre-emergence control of volunteer potatoes	• Cultivars vary in sensitivity to different herbicide treatments and this points to the fact that each cultivar will have to be tested for suitable treatments • Application of mesotrione at 76.8 – 124.8 g ai ha^{-1} inhibits tuber formation development. Greenhouse trials will be followed up by field trails to finalise recommendations
MANAGEMENT OF POTATO TUBER MOTH	Survey of insect pests (Long term project)	• To do a country-wide survey to confirm accuracy of information regarding the pest status on potato of different insect pests	• The survey has been completed. Potato tuber moth and potato leaf miner are the most important insect pests • Nematodes and aphids are seen as the second most important pests. Aphids are particularly important in seed production regions
	Integrated management of potato tuber moth	• To determine the efficacy of different pheromone traps • To develop different protocols for management of potato tuber moth in potato fields	• Home made traps were more effective than water funnel traps • The position of the traps in potato fields did not affect their effectiveness • Pheromone lures proved to be robust. Storage for one year at 4°C, rough handling and washing with soap did not affect effectivity
MANAGEMENT OF SOIL-BORNE DISEASES	Integrated management of root-knot nematodes	• To develop a strategy to decrease the populations of *Meloidogyne* during potato production	• The bio control products tested proved to have potential for management of nematodes
	Evaluation of cultivars for tolerance against soil-borne pathogens	• To evaluate the tolerance of commercially grown cultivars against root-knot nematodes, *Spongospora subterannea* f.sp. *subterannea* causing powdery scab, *Streptomyces* species causing common scab, and *Pectobacterium* species causing black stem and soft rot	• Two highly pathogenic *Streptomyces* isolates were used to infect five potato cultivars. Results indicated that Mondial and Innovator were tolerant and BP1, susceptible. This experiment will be repeated under greenhouse and field conditions to confirm results • Ten cultivars were evaluated for tolerance to *Pectobacterium* species. Preliminary results indicated that BP1 and Sifra are tolerant and Mondial and Valor, susceptible • The methodologies to evaluate cultivars for tolerance against *Spongospora subterannea* f.sp. *subterannea* and root knot nematodes a greenhouse were developed
KNOWLEDGE TRANSFER	Development of fact sheets	• To revise existing, and to develop new fact sheets	• Four new fact sheets were developed and are available in Afrikaans and English (Virus diseases and aphids, Powdery scab, Internal tuber disorders and Internal quality) • A publication Responsible use of Crop Protection Products was developed and published
	Courses	• To develop courses for potato farmers	• The following courses were presented: Irrigation scheduling in South Western Free State, North West, Western Free State, Sandveld (X2) and Limpopo (X2) • Workshops on pack house sanitation was offered in the South Western Free State and Limpopo
	Research Symposium	• To create an opportunity where researchers and potato workgroups can report their results to industry	• The Symposium was held at Klein Kariba, Limpopo and was attended by 170 persons from different sectors of the industry



RUDOLF BADENHORST

MARKET DEVELOPMENT

Over the course of the last year, Market Development had a strong focus on increasing market access to and capacitating the channels through which we market potatoes, including:

- The National Fresh Produce Markets
- Processing
- Informal trade
- Retail; and
- Export

PSA's efforts are constantly driven by the following questions:

- Are the marketing channels functioning optimally?
- What needs to be done to improve market channels?
- What markets need to be accessed?
- How do the potato industry position itself to optimise growth?

To address these issues PSA needed to ensure that it stayed abreast of industry trends and considerations including:

- Pre- & Postharvest management of produce
- Trade and industry liaison
- Foreign market development and access
- Consumer and trade intelligence

The effective and efficient Pre- & Postharvest management of potatoes is of great importance to the industry and over the last year PSA has strived to better understand and capacitate stakeholders. It allows the

MARKETING COMMITTEE

PROJECT	OBJECTIVE
Mr Rudi Heinlein	Chairperson Northern Region (Limpopo)
Mr Joos Engelbrecht	Vice-Chairperson Southern Region (Sandveld, Eastern Cape, Ceres, Southern Cape and Southwestern Cape)
Mr Mike Green	Eastern Region (KwaZulu-Natal, Eastern Free State, North-eastern Cape)
Mr Nicolaas Lourens	Eastern Region (KwaZulu-Natal, Eastern Free State, North-eastern Cape)
Mr Johan van den Heever	Northern Region (Mpumalanga, Gauteng, Loskop Valley)
Mr Werner du Plessis	Western Region (North-western Cape, Northern Cape, Western Free State, South-western Free State)
Mr Tiekie de Kock	Chairperson: National Seed Committee
Mr Deon van Zyl	Institute of Market Agents South Africa (IMASA) Alternative: Mr Mike Cordes
Ms Tutti Rudman	South African National Consumer Union (SANCU)
Ms Matilda van der Walt	National Agricultural Marketing Council (NAMC)
Ms Lilibeth Moolman	Co-opted member: Potato Industry Development Trust (PIDT)
Mr Elvis Nakana	Department of Agriculture, Forestry and Fisheries (DAFF)
Ms Mothlanke Tladi	SA Informal Traders Association (SAITA)
Mr André Young	SA Union of Food Markets (SAUFM)
Ms Francina Makhoane	Consumer Goods Council of South Africa (CGCSA)
VACANT	Processing Forum

industry to improve quality management and to more effectively manage risk in the industry whilst ensuring a consistent and continuous supply.

The effective and efficient pre & post-harvest handling of potatoes is very important for the industry and for the last year ASA has strived to obtain a better understanding of this environment. This allows the trade to improve the quality of potatoes and to more efficiently manage the risks in the industry with the aim of ensuring a consistent and continuous supply of potatoes at the same time.

To support this process, PSA implemented processes to determine and evaluate the industry's requirements in order to establish best practices that could serve as guidelines for good management practices.

QUALITY INDEX

A Quality Index was developed in accordance with the Local standard, to regularly provide producers with a transparent, objective tool to measure the quality of their potatoes in relation to other potatoes available on the market.

The following rules were developed for the index:

- A producer's information stays anonymous
- Only producers from the same production region are compared with each other
- Initially only Class 1 Medium would be evaluated
- Evaluations will be cultivar specific, i.e. the same cultivars will be compared with each other.

Criteria as per the standard (Sliding scale)

- Sizing/weight – Less than 10% is allowed to be outside of prescribed weight range
- All bags must weigh 10 kg on arrival at the market.
- Decay – 2% or less is allowed for decay
- External quality – 5% or less allowed
- Internal quality – 4% or less allowed

Test runs were performed on the Tshwane market and the quality criteria included the following:

- Size group classification
- Weight of bags
- Decay
- External quality defects
- Internal quality defects

HARMONISATION OF STANDARDS

Issues that were managed by PSA included the initiation of the harmonisation process for the review of the current local and export standards and regulations, Maximum Residue Limit (MRL) management, specifications with regards to paper packaging, food safety and traceability, social compacts and good agricultural practices.

Benefits

Uniform interpretation of Standards throughout industry and Quality Management Service providers for Export, Import, and Local Market.

Irrelevant information and requirements can be reviewed and adjusted where needed.

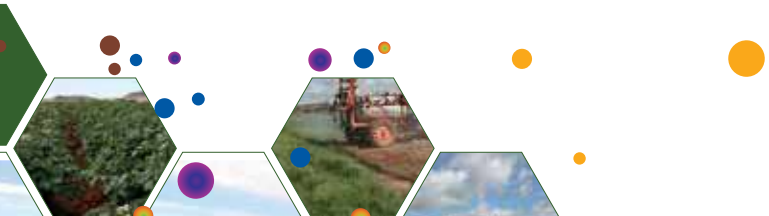
Help manage consumer expectations.

Enables producer through effective Pre - & Postharvest Management to:

- Improve Quality
- Manage Risk
- Manage Consistent & Continuous supply

PSA along with other industry partners such as the Department of Agriculture, Forestry and Fisheries, the PPECB and Prokon are reviewing the local and export standards and regulations with the aim of aligning the different regulations and standards to facilitate the effective trade of potatoes and to ensure that the requirements are realistic and in line with accepted ethical and practical business practises.

It is important to ensure that standards are applicable, practically enforceable and supportive of the industry. Therefore PSA worked over this period to ensure that



there is a common understanding amongst the various role players within the industry in relation to:

- Classification
- Marking Requirements
- Packaging Requirements
- Palletisation
- External Quality Requirements; and
- Internal Quality Requirements

PACKAGING DATE CODES

Food Safety and traceability plays an increasingly important role in the fresh produce industry. Consumers are better informed and are insistent on knowing more about the food that they purchase and eat.

It is important for the industry to move towards management principles that allow us to proactively manage the trend due to the following:

- To protect the interest of producers and the industry. Matters concerning Food Safety has become increasingly important within the produce and food industries. Outbreaks of foodborne diseases in the past have had devastating effect on sectors within the global produce industry. Implementation of marking requirements such as packaging dates assist the various role players to uphold traceability, thereby allowing the industry the opportunity to maintain the integrity of the value chain. Adequate traceability measures allows the industry to minimize and isolate the potential risk within the industry.
- The implementation of packaging date codes has allowed the industry to better manage the quality perception of potatoes. PSA often receives consumer complaints regarding the physical quality and current weight of potatoes in a specific kilogram container. It is very difficult to manage the process of quality query resolution, without a packaging date on the container. It is a realistic assumption that over a period of time, for potatoes packaged on a specific date, the quality will deteriorate and the weight of the potatoes packaged will reduce due to moisture loss. Without a packaging date, there is no effective manner in which to determine the validity of a complaint.

MAXIMUM RESIDUE LIMITS (MRL)

During this period Cyromazine used for the control of potato leaf miner was flagged as a particular instance where a review of the current MRL was required. PSA has had numerous discussions on the Cyromazine issue with the agricultural chemical sector (CropLife South Africa). A specialist investigation conducted by the well-known toxicologist, Dr Ockie Fourie, determined that residues at 1.0 mg/kg do not hold any health risks for consumers. Therefor PSA supported an industry initiative to adjust the MRL for Cyromazine upwards from 0,05 mg/kg to 1,0 mg/kg. Within the ambit of the aforementioned, PSA requested that the application receive urgent attention, for an emergency registration from the Registrar of fertilizers, farm feeds, agricultural remedies and stock remedies in accordance with Act No. 36 of 1947 at the Department of Agriculture, Forestry and Fisheries, so as to ensure minimum disruption to producers and processors.

PAPER PACKAGING SPECIFICATION

During the previous reporting period PSA announced an industry developed voluntary Packaging Specification. Further to the industry developed voluntary standard PSA also investigated the possibility of a South African National Standard (SANS) and approached the South African Buro of Standards (SABS) to determine whether it would be possible.

After favourable consideration of PSA's proposal the SABS established a committee to oversee the development of SANS 1756 for the potato industry to ensure that potato producers have access to high quality potato bags to reduce breakages throughout the industry.

A draft of the standard has been completed and was sent for public comment during this period and PSA expects that this standard will be finalised early in 2017.

UNPACKING THE VALUE CHAIN

As briefly referred to above, understanding the potato value chain is very important for the strategic positioning of the industry.

Potato consumption in South Africa has increased steadily throughout the past decade, increasing by an annual average of 3% per annum. The increased demand has been met by increased productivity, as the area under production has remained fairly stagnant, fluctuating between 50 000 ha and 54 000 ha. Over the same period, yields have increased by 38% allowing the industry to grow total production.

Demand for potatoes is expected to continue to increase through the coming decade to 2024, with an estimated consumption of 2.7 million tons by 2024 given the macro economic assumptions associated with the 2015 BFAP baseline. Future consumption will however be influenced by changes in the price of potatoes, not only at producer level, but also at consumer level.

During the last year PSA conducted a value chain analysis study. The purpose of the research was to unpack and evaluate the various levels of the potato retail value chain in South Africa, providing a transparent overview of the key cost drivers throughout the value chain. Isolation of the key cost drivers allowed for quantification of the effect of changes in these cost drivers at various levels of the value chain. At the same time, with a better understanding of the factors that influence costs within the value chain will improve relationships between different stakeholders, and aid with the understanding of the overall efficiency and competitiveness of the industry.

PROJECT REBIRTH

Good trade and industry relations is of paramount importance for the sustainable development of the industry and PSA worked closely with various industry partners, such as DAFF, NAMC, DTI, APAC, IMASA, SAUFM, Informal Trade, Processors, PPECB, Prokon, PMA and Retailers. One of the most significant projects in which PSA participates from a market development perspective is Project Rebirth.

The Steering committee in consultation with the industry developed a Codes of Best Practice for the management of National Fresh Produce Markets. The accepted Codes of Best Practice clearly defined the responsibilities of each of the following role players:

- Fresh Produce Market Authorities
- Market Agents
- Producers/ Producer Organisations

The defined responsibilities include requirements for each of the following elements:

i. Regulations
ii. Communication
iii. Consignment Control
iv. Safety and Security
v. Hygiene, Cleanliness & Food Safety
vi. Infrastructure: Maintenance & Capex
vii. Information Management
viii. Risk and financial management
ix. Transformation
x. Human capital development

An endeavour as meaningful as Project Rebirth's success is dependent on each role player's commitment towards the successful implementation of the Codes of Best Practice. The culmination of the communication, regulation, information and consignment control requirements above can be summarised into the checks and balances required for ethical trade. The ethical handling and trade of farmers produce is of paramount importance to effective marketing of their product.

A healthy trust relationship between producers, market agents and market management is thus vital to the success of markets. PSA partnered with APAC and IMASA to ensure that a trust environment is created amongst the role players involved in the marketing of producers' fresh produce thereby optimising the marketing of the product.

The project has resulted in more than R100 million worth of combined infrastructure improvements at the Springs, Pietermaritzburg and Tshwane Markets, with further infrastructure improvements planned at the Johannesburg, Tshwane, Port Elizabeth and East London markets.

GENERIC PRODUCT PROMOTION

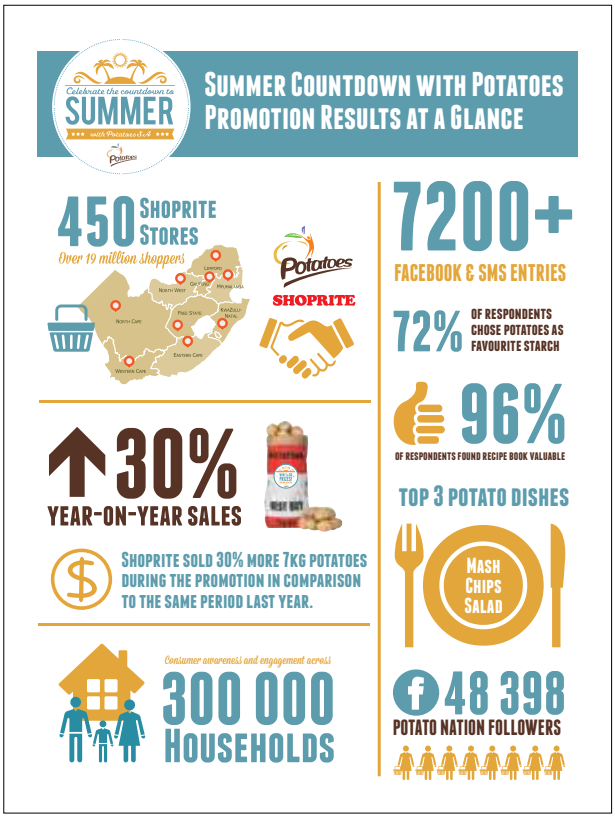
IMMACULATE ZINDE

PSA's Generic Product Promotion Strategy finds its base from classical promotion mix elements of advertising, public relations, personal selling, sales promotions and direct marketing. The 2015/2016 financial year marks a decade of formal potato promotion within the organisation which commenced in 2006. Prior to 2006, no formal promotion on potatoes was carried out and as such the industry experienced a downward movement in per capita consumption, which at the time was ascribed to limited or no formal marketing activities, as well as external factors such as consumer trends and lifestyle changes.

In 2005, per capita consumption of potatoes in South Africa was reported at an estimated 32 kg per annum. The last decade has seen a steady growth and increase in per capita consumption estimated to be sitting at close to 40 kg per annum in 2016. The formalisation of all marketing activities has greatly contributed to this growth. Promotion as the 4th P of the marketing mix, has played an instrumental role in creating awareness about the positive attributes of potatoes; including nutrition and health, cooking characteristics as well as product versatility within the vegetable and carbohydrate markets.

A decade later, the available body of facts and information on the efficacy of generic product promotion efforts reveals great strides achieved in the stimulation of product demand and purchase. Recent evidence suggest that consumers are starting to be less price sensitive towards the product. This was witnessed in the 2015/16 financial year, wherein, rising potato prices, resulting from external forces such as drought and very high temperature, did not deter consumers from choosing potatoes as one of their most preferred vegetable foods.

The 2015/2016 financial year drew to a close with immense pride for the efforts and results the Marketing Core Business has been able to produce in its endeavours to meet one of the critical organisational



goals of increasing per capita consumption of potatoes in the country. Milestones achieved in the 2015/16 fiscal are:

- Our sales promotion campaign executed under the theme: *Summer goes with Potatoes* carried out from 26 October to 30 November 2015 stood us in formidable stead as it continued to prove the power of in-store promotion and its ability to sway consumer purchasing decisions towards bold & well placed products when well promoted in-store. During campaign period the *sales of potatoes increased by 30%* when compared to the same period in previous years and were reported to be the number one seller under the fresh produce umbrella in the month of the promotion with overall potato sales across all product lines increasing by 11% during campaign period.

- The Core Business was able to procure *FREE media exposure to the value of R27 million* through the publishing of potato based recipes and other relevant news across various mediums of advertising.
- **Potato Nation…**a name used across all social media platforms such as Facebook, Twitter and Instagram, has in the 2015/2016 financial year been able to break the 50 000 following mark, to well over 55 000 combined following as of 30 June 2016. The platforms have been successfully used to post content that is relevant, current, engaging and interesting. Not only has social media platforms given potatoes a voice of power, nutrition and health … they have incited interest and desire amongst followers that led to an unexpected and genuine love for the product and its offering. By analysing the statistics of some of the many posts that were published, it is evident to see that the content reached many people, received a lot of engagement and led to PSA's pages being liked.
- Various print advertisements were placed in print mediums such as You, Drum and Landbou Weekblad, thereby providing the organization with the opportunity to inform, inspire and educate the South African general public, primarily LSM 4-7 about the nature and nutritional attributes of potatoes.
- The estimated reach of consumers who have potentially been exposed to the communication message advertised is estimated at over 11 million South Africans across all LSM groups.
- Personal Marketing is one of the P's of the promotion mix elements and often occurs face-to-face between the buyer and customer or potential customer. The beauty of personal selling is that it affords the seller the opportunity to offer experiential marketing using the five senses of smell, taste, sight, hearing and feeling. PSA through its participation in the Good Food and Wine Shows held in Durban November 2015 and Cape Town May 2016 was able to carry out top notch exhibitions which have led to show visitors that have interacted with the product to (1) be positively & creatively engendered to the true attributes of potatoes (2) witness how potatoes can be prepared in a myriad of innovative ways and (3) learn how potatoes fit in perfect balanced/gluten-free/vegetarian or even weight management diet. It is safe to say through these two exhibitions, PSA has been able to live up to its strategic intent to: inspire, inform and educate!

Photo Source: True Love Magazine Editor, Tumelo Sebopa; The Saxon Boutique Hotel & Spa; D'Arcy Els and the Ginja Magazine Team

- "Walk the talk" was the culture of all Generic Product Promotion activities in the last financial year. Generation of creative, current and contemporary content was at the centre of all work carried out. Three highly acclaimed chefs in the country were sourced to develop potato based recipes that were splashed on the consumer website, across social media platforms, on print media and all promotion material. These took the form of novel, fresh and proudly South African recipes that aimed to showcase potatoes as a true food of the South African nation.
- The chefs brought to the fore the many rich and colourful cultures found in the country when developing these recipes and were mandated to ensure that the recipes resonate with the aspirations and eating traditions of LSM 4-7. Low and high end income group segments were not excluded in this creative process.

  Nutrition and health continue to be at the forefront of all educational messages that are carried out to the end-consumer for shifting prevailing negative perceptions and attitudes purposes. To ensure that the communicated message is believable, factual and backed by scientific evidence, Generic Product Promotion makes use of health professionals and experts to release articles, to counter negative media coverage in the food and consumer space, as well as promote the incorporation of potatoes in everyday meals as a way of adhering to the South African Food Based Dietary Guidelines which clearly state that:

  - South Africans should make starchy foods the basis of all meals
  - South Africans should eat five fruit and vegetable on a daily basis

  The above guidelines squarely fit the profile and natural attributes of potatoes and ultimate objective of PSA of shifting the demand curve to the right. Well researched and crafted messages therefore, play a pivotal role in all communication so that non-users of potatoes and/or sceptical consumers of potatoes can be converted to loyal pro-potato consumers.
- In order to drive sales in the short term a campaign targeting black consumers in the townships of Gauteng, North West, Mpumalanga and Limpopo was implemented in the month of May 2016. The campaign was also used to unearth valuable insights about the psychology of the black middle class group residing in townships. From a sample size of 347 consumers spread out across the afore said regions, key research findings were revealed on the perceptions and attitudes of black consumers towards potatoes. These will either be extrapolated into a bigger whole, or used as a springboard for further research. Some of the interesting findings of the research can be summarised as follows:

  - 47% of the sample size claimed to buy potatoes because it is a vegetable;
  - 49% of the sample, though with a clear understanding that potatoes are a carbohydrate too, claimed to consume potatoes as a vegetable instead of a carbohydrate;
  - When asked about their frequently consumed carbohydrate, bread and rice garnered the most scores, with 49% of the respondents claiming to consume these items everyday;
  - When respondents were asked if they believed potatoes to be fattening, 38% answered YES!

  It can be concluded from the research findings above that there is an untapped treasure trove of golden opportunities to perform market development by positioning potatoes as a starch as well, whilst also educating that potatoes are not the health & nutrition culprit, but, how they are prepared and consumed.

  The full report on the research carried out can be obtained from the Manager: Generic Product Promotions – immaculate@potatoes.co.za.

  It is evident from the above results that great strides have been made in the 2015/16 financial year to promote potatoes successfully. It is also evident that there are a lot of opportunities for the industry to grow the market in a profitable and sustainable manner.

NOMVULA XABA

TRANSFORMATION

The aim of the Transformation Core Business within PSA is to ensure the development of new Black farmers who have an interest in becoming commercial potato farmers. It also aims to address food security by engaging with rural communities and assisting them with demonstration plots where they are taught how to plant potatoes for consumption in an economic way.

For the past few years, PSA has been involved in Transformation projects and progress is increasingly more visible. The number of hectares of potatoes planted by Black farmers supported by PSA is on the rise and there are farmers who have already been identified as having the potential to farm commercially.

During the year under review, PSA focussed on the following projects in respect of Transformation:

- Enterprise Development
- Small Grower Development Programme
- Tertiary Skills Pipeline
- Farm Based Training
- The 4th Bi-Annual Transformation Symposium

1. ENTERPRISE DEVELOPMENT

The goal of Enterprise Development is to assist in setting up, supporting and growing viable new Black owned potato producing enterprises while the objectives are:

- To develop an economic programme that is aimed at sustainable potato production by emerging farmers in order to utilise available land and assist towards the maximum benefit of an integrated production system.
- To develop emerging farmers to grow and produce commercially in a sustainable way.

Through the Enterprise Development Programme, PSA has been supporting emerging farmers for the past seven years. The initial engagement with the farmers was that PSA will, i) provide seed for between 3 and 5 ha, ii) provide training where necessary, iii) provide technical support and iv) expose the farmer to the industry through the New Farmer Induction initiative. Linked to budget availability, PSA was also committed to supporting 6 farmers per year for 4 years on a sliding scale basis (Y1=100%, Y2=75%, Y3=50%, Y4=25%).

Based on the support model described above, there were a number of challenges that farmers experienced; the major one being access to finance and machinery. The mechanics of the model above imply that all farmers participating in the Enterprise Development Programme will need to have own funding for chemicals, fertilizer, labour and also access to machinery. Over and above this, they still had to contribute towards their seed cost as the years progressed. Lack of own finance to produce potatoes profitably and in a sustainable manner resulted in the following:

1. As the farmers progressed in the programme, the number of hectares decreased. They only had access to seed which was contributed by PSA and seldom made the contribution towards seed as per the requirement of the programme.
2. The tonnage produced by the sector was not on par with the commercial counterparts and this could be attributed to insufficient fertilizer and chemicals being applied.
3. The farming venture not being sustainable due to a lack of technical expertise in potato production.

1.1 Review of the Enterprise Development Programme

In 2013, there was a need to review the strategy after a study was conducted by an independent consultant. The study indicated that the Enterprise Development Programme was a high cost, low impact programme. This, according to the study, was as a result of the scattered geographical locations that these farmers are situated in. It also indicated that there was no linkage between the farmers supported by PSA and other partners in the potato industry. PSA then devised a new

implementation process and also reviewed the strategy in terms of supporting the farmers.

1.2 The implementation of the process

PSA adopted a new implementation process which focused on the following:

- Conducting a pre-feasibility study for the new farmer as part of a selection process. During this process, the farmer's information is verified, his readiness in terms of providing co-funding is assessed, his soils are analysed for its suitability for potato production, a mentor is identified and training gaps are analysed.
- Conducting a business plan: the business plan would detail the whole implementation plan of the new venture together with the financial planning.
- Identification of other partners such as financiers, input suppliers and off takers.
- Linking up the farmer with other partners in the potato industry.

Since the adoption of the new implementation process, there has been a great improvement in terms of the farmers that are selected to participate in the Enterprise Development Programme. PSA, in some instances, has played a role in linking up these farmers to the input suppliers and off takers, however a lot can still be done to make sure that this process runs smoothly.

Approval was also granted by all the structures to focus on expanding the hectares of deserving farmers who are already participating in the Enterprise Development Programme and since they pose a lower risk than new farmers who had to be identified every year. The new strategy also allowed PSA not to limit the hectares to 5 per farmer but to look at the potential of the farmer and also the resources available at the disposal of the farmer.

1.3 Proposed focus on the Enterprise Development Programme

There is currently a strong focus in terms of making sure that farmers participating in the Enterprise Development Programme become commercial farmers. This will however depend on the availability of land, the technical expertise that they possess, the support from PSA and other partners in the industry. The Transformation Committee has also been reviewing the progress in terms of Transformation and identifying ways of leveraging support from other partners. The following recommendations have been made and approved by the different structures:

- PSA to focus on supporting less farmers, but with potential to grow to commercial status.
- PSA must look at the whole farming business of the farmer and not just the potato component and assess if the farming business is viable.
- PSA to also identify people who are already farmers (with other commodities) and introduce potatoes to them; this could be done with interactions with other commodity organizations such as Grain SA who already have farmers whom they support.
- PSA to focus on developing partnerships.
- Identify additional sources of funding and partnerships.

1.4 Farmers supported during the year under review

The following farmers were supported during the year under review. A number of farmers requested to skip a year due to the drought that was experienced throughout the country. Some farmers were also advised to skip a year as their respective municipality regulated the water available for agricultural use.

Farmers supported in the following provinces:

- Eastern Cape 3
- KwaZulu-Natal 4
- Free State 1
- Limpopo 7
- Gauteng 1

2. SMALL GROWER DEVELOPMENT PROGRAMME

The Small Grower Development Programme involves farmers who plant potatoes mainly for food security with the remaining crop sold to the immediate community. The main goals of the Small Grower Development programme are:

- To disseminate production and business information through trials.
- To provide farmers with practical training on good potato production practices.
- To utilize cultivar or demonstration trials as a way of educating, training and disseminating important production information that is necessary for successful potato production.

An amount of R166 000 was spent towards small grower development in KwaZulu-Natal, Eastern Cape and the Western Cape. The Small Grower Development Programme receives a lot of support from the Department of Agriculture, Forestry and Fisheries (DAFF) in these areas. Twenty (20) projects were supported during the year under review and each information day was attended by an average of 50 people making the number of beneficiaries to be over seven hundred (700). PSA also ventured into a school project where 0.1 of a hectare was planted at the school premises. The demonstration trial was well attended by the school children, some members of the community and also the teachers.

3. TERTIARY SKILLS DEVELOPMENT PIPELINE

The PIDT annually awards bursaries to deserving students studying towards an agricultural related qualification with the emphasis on potato production. The undergraduate bursary programme is primarily aimed at developing the skills of young talented students at existing potato enterprises. Their development is done through tertiary education at universities and agricultural colleges.

The post graduate bursary programme, on the other hand, is aimed at making a contribution towards ensuring sufficient post graduates to address the relevant research areas affecting the industry as well as increasing the industry's pool of appropriately qualified scientists. The Research and Development Core Business together with the Transformation Core Business are jointly responsible for funding and identification of post graduate students.

During 2015/2016, the following bursaries were awarded to students at different institutions throughout South Africa.

Table 9: Undergraduate students

	NAME AND SURNAME	FIELD OF STUDY	INSTITUTION
NEW STUDENTS: 2016			
1	Ms Kamogelo Eugina Leburu	National Diploma Agricultural Management	Central University of Technology, Free State
2	Ms Mamotshabo Malebogo Rachel Rakgwale	National Diploma Agricultural Management	Central University of Technology, Free State
3	Mr Sthembiso Cele	National Diploma in Agriculture: Plant Production	Mangosuthu University of Technology
4	Ms Zama Siyethemba Nyathi	National Diploma in Agriculture	Mangosuthu University of Technology
5	Mr Thabo Emmanuel Thomas Thubane	Diploma in Agriculture: Mixed Farming	Potchefstroom College of Agriculture
6	Mr Kgolofelo Clifford Moshiana	Diploma in Agriculture: Mixed Farming	Potchefstroom College of Agriculture
7	Ms Lavhelani Tshilongo	Diploma in Agriculture: Mixed Farming	Potchefstroom College of Agriculture
8	Mr Ofentje Khaphola	National Diploma Agricultural Management	University of Mpumalanga
9	Mr Kemi Kgaume Makonko	National Diploma Plant Production	University of Mpumalanga
10	Ms Rebotile Sophy Thaba	BSc Agric: Soil science	University of Venda
11	Mr Xolani Hlatswayo	BSc Agric: Agronomy	University of Zululand
EXISTING STUDENTS: 2015 AND EARLIER			
12	Ms Dimakatso Cecilia Moiloa	Diploma in Mixed Farming	Potchefstroom College of Agriculture
13	Mr Ndzudzeni Madia	Diploma in Agriculture	Potchefstroom College of Agriculture
14	Mr Agreement Leago Malebe	BSc Plant Production	University of Limpopo
15	Mr Phuti Cedric Fisha	BSc Agriculture	University of Limpopo
16	Mr Celumusa Mthimkhulu	BSc in Agric	University of KwaZulu-Natal
17	Mr Bhekisisa Andreas Nxumalo	BSc Agriculture	University of KwaZulu-Natal
18	Mr Loyola Gauzela	BSc Agriculture 4 year degree	University of Zululand
19	Mr Mhlengi Sboniso Khambule	BSc Agriculture	University of Zululand
20	Mr Xola Ngceni	BSc Agriculture	University of Fort Hare
21	Mr Khumalo Mholi	Diploma in Agriculture	Cape Peninsula University of Technology

Table 10: Postgraduate students

	NAME AND SURNAME	INSTITUTION	FIELD OF STUDY	YEAR OF STUDY
POST-GRADUATE STUDENTS: 2016				
1	Mr Tlotlisang Nkhase	University of Pretoria	MSc Agronomy	Masters 3
2	Ms Ntombikayise Precious Nkomo	University of Pretoria	Plant Pathology and Microbiology	PhD 1
3	Ms Talana Cronje	University of the Free State	BSc Agric Honours in Agronomy	Honours

	NAME AND SURNAME	INSTITUTION	FIELD OF STUDY	YEAR OF STUDY
EXISTING POSTGRADUATE STUDENTS: 2015 AND EARLIER				
1	Ms Josephine Mmadi	North West University	MSc Degree	MSc
2	Ms Ntwanano Maluleke	University of Pretoria	MSc Microbiology	MSc
3	Mr Stefan Priem	University of Pretoria	BSc Microbiology	MSc
4	Ms Lutendo Nally Muelelwa	University of the Free State	MSc Agrometeorology	MSc
5	Mr Wavhuthu Ndou	University of Stellenbosch	MSc Agronomy	MSc
6	Mr Present Sikhulile Gininda	North West University	MSc Agriculture Economics	MSc

Table 11: Internship and workplace experience

	NAME AND SURNAME	INTERNSHIP	PREVIOUS EMPLOYER
INTERNSHIPS AND WORKPLACE EXPERIENCE			
1	Mr Assegaai Vincent	Prokon - Cape Town	Screeners Development
2	Ms Lethokoe Kefilwe	Potato Seed Production	Potato Seed Production
3	Ms Monama Gloria	Prokon - Pretoria	Potato Seed Production
4	Ms Phahlamohlaka Palesa	Prokon - Pretoria	Potato Seed Production
5	Ms Mbuli Nomaswazi	Prokon - Johannesburg	Crocodile Valley
6	Mr Mholi Khumalo	Potato Seed Production	1st year internship
7	Mr Ndzudzeni Madia	Potato Seed Production	1st year internship
8	Ms Dimakatso Moiloa	Potato Seed Production	1st year internship
9	Mr Tshegofatso Ratlhagane	Prokon - Johannesburg	Indingo Food Farming

3.3 Internship and workplace experience

The internship programme is primarily aimed at providing experiential training opportunities to bursary recipients whose study disciplines require practical training and exposure as part of their qualification. The workplace programme is aimed at affording the students with the opportunity to obtain workplace experience to enhance their employment opportunities. PSA received an additional amount of R180 000 towards the Internship Programme. Table 11 shows the students that were placed on the internship programme.

4. FARM BASED TRAINING

4.1 Enterprise Development farmers

Following the skills audit done in 2014/2015, which highlighted some skills shortages/gaps amongst the Enterprise Development farmers, financial management training for the Enterprise Development took place in the following provinces:

- KwaZulu-Natal
- Eastern Cape
- Limpopo

The training was well received by farmers based on the review of the course that was done through an evaluation form at the end of the session. Farmers however indicated that they need to be offered with this type of training on a regular basis to refresh their memories. They also indicated that they still require further training in terms of other aspects of the farming business to make sure that their business venture is a success.

4.2 Training of commercial farmers' labour

PSA, through its Transformation Core Business continued to partner with the AgriSETA in terms of ensuring that employees of commercial farmers receive training. An amount of R378 000 was received and utilised for training mainly in the Eastern Cape region. An additional amount of R500 000 was again approved by AgriSETA for training and PSA's Regional Managers are already engaging with the farmers to ensure the smooth rollout of the training.

5. THE 4TH BI-ANNUAL TRANSFORMATION SYMPOSIUM

The 4th Transformation Symposium was held in East London on the 9th of June 2016. The event was attended by approximately 140 delegates. It was also graced by the presence of the Eastern Cape Honourable Member of the Executive Committee, Mr Mlibo Qoboshiyane who gave a powerful keynote address with regards to intended partnerships with the private sector. The focus of the symposium was access to finance by developing farmers. The panel discussion interrogated the matter and there were consensus in the end in terms of the recommendations made to PSA on what to focus in going forward.

ALBERT BONESCHANS

ATTIE VD BERG

ENRIKE VERSTER

HERMAN HAAK

TERENCE BROWN

INDUSTRY SERVICES

PSA's Department: Industry Services is responsible for providing a comprehensive regional-based service to potato producers. Industry Services not only serves as the link for two-way communication between potato producers and PSA, but also functions as an extension of PSA's core business units.

The five regional offices which are strategically placed provided the relevant services to the 16 production regions as set out in the table hereunder.

Farm visits	748
Market Visits	47
Impact measuring visits (IRD)	35
Meetings / Information days	73
Meetings attendance	1980

REGIONAL SERVICES

During the period under review, the regional offices were responsible for establishing and maintaining the necessary structures and platforms at regional level. These include all meetings of the regional and sub-regional managements and potato workgroups, as well as farmer days, information days and research days, which serve as platforms for potato producers and other role players to meet, discuss matters of common interest, share information and to take decisions on matters of regional and national importance.

The regional personnel serve as an extension of PSA's core businesses in terms of executing the core business-related activities in the potato production regions with the emphasis on communication and technology transfer.

In addition to producer meetings, personal visits to producers are an important part of the service delivery by regional personnel members. Meetings with producers not only provide the opportunity to verify the accuracy of production statistics, but also allow for the following:

- Conveying information on production and market trends, used by producers in the planning of their planting, harvesting and marketing strategies.
- Providing technical support, regarding matters such as problems relating to pests and diseases, as well as through the support with mechanical damage by using the IRD. Thirty five special visits were conducted to support producers with mechanical damage.
- Feedback on the core business and general activities of PSA, as well as liaison at government level.
- Identifying producers' needs in terms of regional and national affairs, with a view to refer such matters to the regional management committees and, if necessary, to the PSA Board of Directors.
- Promoting the image of PSA to other industries in the supply chain as well as cooperation with other agricultural products supply companies.
- Handling of enquiries and problems experienced by producers, other role players in the various production regions and the Department of Agriculture, Forestry and Fisheries.






CORE BUSINESS SUPPORT SERVICE

Industry information

With regard to industry information, regional personnel are responsible for gathering production statistics in the various production regions for inclusion in the phase reports. This information is converted into business intelligence and conveyed to the industry in the form of market trends, such as fortnightly crop estimates and monthly newsletters, which contribute towards a sustainable farming environment. Crop estimates were of a high standard and deviations were consequently minimal.

Market development and product promotion

A key function of the regional personnel is visits to and interaction with the national fresh produce markets, private markets, wholesalers, pre-packers, retailers and the processors within their respective production regions.

Market visits

During the year under review 47 market visits were conducted. On these occasions the following matters were addressed:

- Communicating production and market trends.
- Resolving complaints and problems.
- Monitoring the quality of producers' products.
- Conducting quality and stock control, if necessary.
- Monitoring the general condition and neatness of markets and discussing it with markets agents and management.

Refocus on liaison with the National Fresh Produce Markets

The aim is to liaise with market authorities and agents on a regular basis in order to address production and marketing matters and the needs of producers.

Market floors were visited in order to:

- Conduct audits in conjunction with market authorities.
- Monitor supply movements, sales and price setting in conjunction with market authorities.
- Ensure that potatoes deemed unfit for human consumption, were handled in accordance with the prescribed regulations and procedures.
- Ensure that potatoes lost due to theft and other losses are handled in accordance with the appropriate market system regulations.
- Ensure that producers' queries in respect of the above matters are addressed in a professional manner, in conjunction with market authorities and market agents.
- Provide feedback to producers on their products through goal orientated market visits where photos are taken of the produce and then presented to the producers.

Visits to industry stakeholders

Regular visits were paid to potato processors in order to address product and cultivar requirements, demand, quality issues and processing trends.

Wholesalers, retailers and pre-packers were visited to determine the supply from the respective production regions and to monitor the different packing methods, consumer needs and trends.

Agricultural shows, promotional days, etc.

The regional offices were closely involved in product promotion through agricultural shows, promotional days, media articles and media liaison, as well as via liaison with various partners in the potato value chain. Events included the Vivo Farmers' Day, the Sandveld Information Days, the Eastern Free State Information Day, and the Ceres Soccer Tournament. A publicity article on potato production in the Sandveld was also published in the Landbouburger.

Transformation

Regional Offices visited emerging farmers to provide assistance and training and mentorship to 16 emerging farmers. Attention is also given to farm worker training in various production regions. Producers are assisted by organising of training as well as venues for the following courses:

- Forklift training
- Health and safety
- Safety awareness
- Food hygiene
- Environmental programmes
- Packhouse procedures
- Fertilization and irrigation
- Administration of chemicals

Research

Regional research is conducted by 13 potato workgroups at regional level with producers to ensure that purposeful independent farm based research is conducted which has an important influence on each production region to determine which cultivars are best adapted to the regional climate and needs. In addition, chemical as well as fertilisation trials are conducted to determine each region's optimal needs and to provide the correct information to producers for potato production.

POTATO CERTIFICATION SERVICE

REPORT OF THE
CHAIRPERSON
GERHARD POSTHUMUS

Potato Certification Service (PCS) is celebrating 21 years of service to the potato industry for the vital role played in ensuring good quality reproductive material.

Looking at the role Potato Certification Service plays nationally and internationally, there is huge reason for gratitude. Certification is the key that takes the value of the product to the next level. As certification is done by an independent company with the necessary expertise, certification provides credibility. The traceability within the Scheme is invaluable. The Scheme is applied consistently by knowledgeable people.

The Board ensures that the company's finances are well managed in the best interest of the seed grower, without detracting from the quality of service provided. The income budgeted for based on hectares supplied by growers and the eventual registrations, always complicates the management of the company's finances in a non-profit-seeking environment. Financially PCS is strong, with sufficient reserves to persevere through crisis times.

Sufficient expert staff within the company is an aspect that receives constant attention. The higher the level of expertise, the better the potato industry can be served. In spite of the loss of certification officials, it is heartening to see that these men make their mark in the potato industry.

In the past year, a lot of time and effort was spent on revisiting PCS's personnel structure and remuneration. A complete organizational diagnosis was conducted. Some adjustments have been made and the conclusion was, that the staff is "as lean and mean as they come" with the necessary expert support staff in place. The company is healthy and well managed.

I would like to thank my fellow directors for their commitment, time and positive inputs.

The PCS staff, thank you for your expertise and commitment that enables us to certify a world class product.

A special word of thanks to the seed potato growers, who have the interests of the industry at heart and literally put everything in to produce good quality certified seed potatoes.

Thank you

Gerhard Posthumus
Chairperson

REPORT OF THE

MANAGING DIRECTOR

SANETTE THIART

Potato Certification Service (PCS) celebrated 21 years of service delivery to the potato industry on 14 June 2016.

PCS embarks into the future with the theme: "Certify for the Future". The focus is on good quality planting material in order to address the three P's, "People, Planet and Profit." Quality seed potatoes that are well managed will deliver good returns to feed the growing nation, ensure a healthy planet and will be to the economic benefit of all.

In looking back over the past 21 years, there were really tough times with regards to finance, pests and service delivery. The willingness of the seed potato growers to make a financial contribution to keep the company going by loans levied, is indicative of the value added to seed potatoes by certification. Service delivery amidst shortage of fully trained certification officials was never easy, but quality services were always rendered. PCS continually strives to improve service delivery and adding value to the product we certify.

After 21 years of existence, one can however, not only look back, but should also look forward. It is opportune to look fresh and new at all operating structures and their functioning. Talks with PSA, with input from the ICCSP Technical Task Team, have led the industry to enter a new dispensation where the mandates of the various industry organizations will be revisited. The consultation process has begun and will spread wider as we move forward. The proposals already on the table can only lead to all the role players moving closer to each other to the benefit of the entire industry.

THE COMPANY: POTATO CERTIFICATION SERVICE

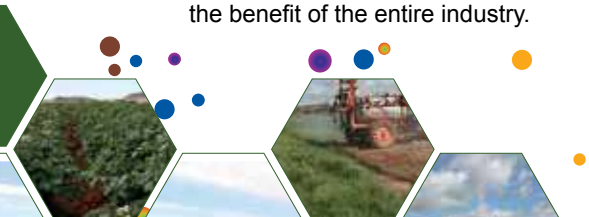
Potato Certification Service (PCS) is contracted as service provider for the certification of seed potatoes by the Independent Certification Council for Seed Potatoes (ICCSP), appointed as the authority by the Minister of Agriculture, Forestry and Fisheries. PCS has been audited by the Department of Agriculture, Forestry and Fisheries (DAFF) in order to ensure that the work is conducted correctly.

The management of the company is set out in the company's Memorandum of Incorporation and Board Charter. The Board Charter is evaluated and reviewed annually to ensure that PCS is managed in accordance with good corporate governance.

Furthermore, it is satisfying to report that PCS has been verified as a Level 5 Contributor with a B-BBEE procurement recognition level of 80%.

BOARD OF DIRECTORS

The Board of Directors had two resignations in the past year. Messrs. Van der Spuy Botes and Paul van Niekerk resigned. Mr. André Coetzee was appointed as director representative of the North and Eastern Cape and Mr. Guybon Osler, representing the Eastern Free State. The North-Eastern Cape also qualified in terms of the criteria for the National Seed Potato Committee, and therefor also for representation on the Board. Mr. Garrick



Christiane was appointed as director for the North-Eastern Cape.

Since the North Eastern Cape qualifies in terms of the criteria for representation on the National Seed Potato Committee and therefore also for representation on the Board of PCS, PCS's Memorandum of Incorporation (MOI), had to be amended as it only provided for nine directors, which would have been exceeded by the appointment of another director. The Board amended the MOI to provide for 13 directors.

During the Annual General Meeting, Mr. Gerhard Posthumus was appointed Chairman of the Board with Mr. Jakkie Mellet as Vice-Chairman. The Executive Committee consists of the Chairman, Vice Chairman and Managing Director. The newly appointed directors certainly brought a fresh perspective on some aspects. Thank you very much to each director for dedicating your time and expertise to the benefit of the seed potato industry.

MEMBERS OF THE COMPANY

The members of the company consist of the original signatories of the Memorandum of Incorporation of the Company, by name: Gerrie de Jager, Jerry van Vuuren, JF van der Merwe, Pieter Laubscher, Graham Armstrong, Charl du Toit, Solly Hyman and Johan Jacobs. Since then, no membership fee was payable and no member register was kept. The seed potato growers are the clients of the Company. The Board of Directors approved the amendment of the Memorandum of Incorporation of the Company from a Non Profit Company (NPC) with Members to a NPC without members and the original members passed a special resolution to this effect at the annual Seed Potato Growers' Forum. The active seed growers, in other words, all the growers who have for the past 4 years registered plantings for the certification of seed potatoes under the South African Seed Potato Certification Scheme (Scheme), are currently 156 active seed growers, of which 110 have registered plantings in the past year. During the same period, eight new growers joined the seed potato industry.

POTATO HOUSE

PCS has a 26% share in Potato House and PSA has a 74% share. The building was originally purchased for an amount of R4 124 243 to which PCS contributed a loan to the value of R1 072 303. In March 2016, the building was valued at R6 050 000. The day to day maintenance is done by PCS every four years. The year under review, it was mainly PSA's responsibility, with PCS serving on the Maintenance Committee.

STAFF

PCS had one resignation in the past year. Heinrich Steyn, certification official in Christiana resigned and joined Wesgrow. Pieter Leibbrandt was appointed in his place. During the reporting year, Gareth Windt, Renier Viviers and André Murray fully qualified on all aspects of certification as fully qualified certification officials. Johandré Breitenbach, Johan Germishuys and Pieter Leibbrandt are making good progress with their training and should be able to fully qualify in the year to come.

Ms. Hanlie Rabe, from PSA, assisting with administration in Piketberg, resigned. Much appreciation and gratitude are expressed for her assistance throughout many years.

PCS is committed to accommodate transformation students who need practical training to obtain their degree or students who need workplace experience. Allester Jordaan is an intern student in Piketberg, where he is exposed to all aspects of certification. He studies for his National Diploma in Agriculture: Crop Production at the Cape Peninsula University of Technology.

Thank you to all the staff sharing their passion for the seed potato industry with that of the seed potato growers.

FINANCE

The financials for the period 1 July 2015 to 30 June 2016 are briefly discussed. The annual financial statement will be presented for approval on 9 November 2016 at the annual general meeting.

The budgeted total income of R18 056 457 in this report year was based on 9 055 hectares to be registered. The actual registered hectares came to 9 933, which were 878 more than expected. This resulted in a total income of R19 495 003, which resulted in R1 438 546 more than budget. The expected expenses of R17 160 809 were exceeded by R1 307 628, which brought the total expenses to R18 468 437. Due to the additional hectares registered, PCS was able to end the financial year on a net surplus of R1 026 566.

PCS is still a going concern that continually strives to deliver a professional and cost-effective service amidst fluctuating hectares.

The budgeted hectares, actual hectares and the difference in the various regions are as indicated in Table 1.

COMMITTEES AND FORUMS

The committees and forums within the potato industry constitute organised platforms where the majority of communication with growers and other stakeholders in the industry takes place. Aspects that need to be considered are tabled by the regional seed grower meetings at the National Seed Potato Committee. The various aspects are then debated and, if it is in the national interest, the committee refers recommendations and resolutions to the relevant bodies and committees involved in the seed potato industry.

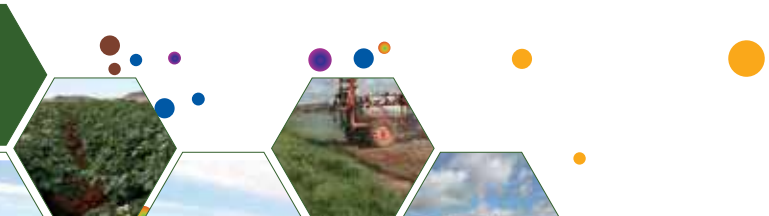
The legal scrutinizing of the Scheme was concluded and the amendments have been submitted to Department of Agriculture, Forestry and Fisheries (DAFF) for consideration and publication. The Protocol still needs to receive considerable attention.

On behalf of the company, I thank each committee member for your careful consideration of all matters at hand and making decisions that are in the best interest of the entire potato industry.

To the respective chairmen of the PCS's Board, Mr. Gerhard Posthumus, the National Seed Potato Committee, Mr. Llewellyn de Kock and the ICCSP, Dr. Dave Keetch, thank you for the time, energy and passion that you put into your respective mandates. Your commitment to the potato industry is noteworthy.

Table 1: Hectares

REGION	BUDGETED HECTARES	ACTUAL HECTARES	DEVIATION
Douglas	**650**	**957**	**+307**
Northern Cape	600	862	+262
Eastern Cape	50	95	+45
Christiana	**5 700**	**5 894**	**+194**
Western Free State	4 900	4 988	+88
Northwest	500	632	+132
Eastern Free State	300	274	-26
Pietermaritzburg	**1 506**	**1 961**	**+455**
KwaZulu-Natal	1 281	1 420	+139
North Eastern Cape	225	541	+316
Piketberg	**716**	**574**	**-142**
Sandveld	519	403	-116
Ceres	112	41	-71
Southern Cape	85	130	+45
Dullstroom	**483**	**547**	**+64**
Mpumalanga	303	385	+82
Limpopo	180	162	-18
Total	**9 055**	**9 933**	**+878**



GENERAL

My heartfelt gratitude and appreciation go to the seed potato growers of South Africa who see themselves primarily as seed producers, who manage their seed potato plantings in such a way that the best possible product can be certified. Seed potato production is a process which begins with planting the best possible seed source, protecting it from possible infection, rogueing it from sources of infection, right to protecting it from physical damage and packing the right quantities. Certification is also a process and starts with registration, followed by field inspections, tuber inspections, testing of representative samples and ultimately certifying a product that conforms to the standards and norms set by the Scheme.

A big thank you to all the companies annually sponsoring the Seed Potato Growers' Forum. Without your financial contribution and attendance, the Forum would not be such a special event on our calendar. It has been amazing to work with Bayer as main sponsor. Thank you very much for your huge sponsorship of the gala dinner, but especially thank you for your energy and passion for the Seed Potato Grower of the Year Award. Bayer, Seed Grower of the Year and PCS are synonymous with quality. We look forward to embarking into the new year with our theme "Certify for the Future" linked to your "Committed to the Future".

My message to all seed growers is: "Never, ever give up!". South Africa needs you to produce quality planting material for the potato industry. I cannot imagine a meal without potatoes as it will no longer be affordable. We need you in order to take potatoes from a staple food to a status food!

Kind regards and best wishes

Sanette Thiart
Managing Director

BUSINESS REPORT

STRUCTURES

Potato Certification Service (PCS) is a non-profit company, established in 1995, with the mandate to certify seed potatoes.

PCS's vision is to play a leadership role in the pursuit of a sustained supply of healthy planting material for the South African potato industry.

PCS's mission is to supply an industry-related service, which supports the South African potato industry to perform optimally by ensuring the availability of high-quality planting material.

PCS strives towards excellence by living the following values:

- Client trust and satisfaction
- Effective utilisation of resources
- Equal opportunities
- Performance orientation

PCS is contracted by the Independent Certification Council for Seed Potatoes (ICCSP) to manage and administer the South African Seed Potato Certification Scheme. The Scheme was promulgated in terms of the Plant Improvement Act, 1976 (Act No. 53 of 1976).

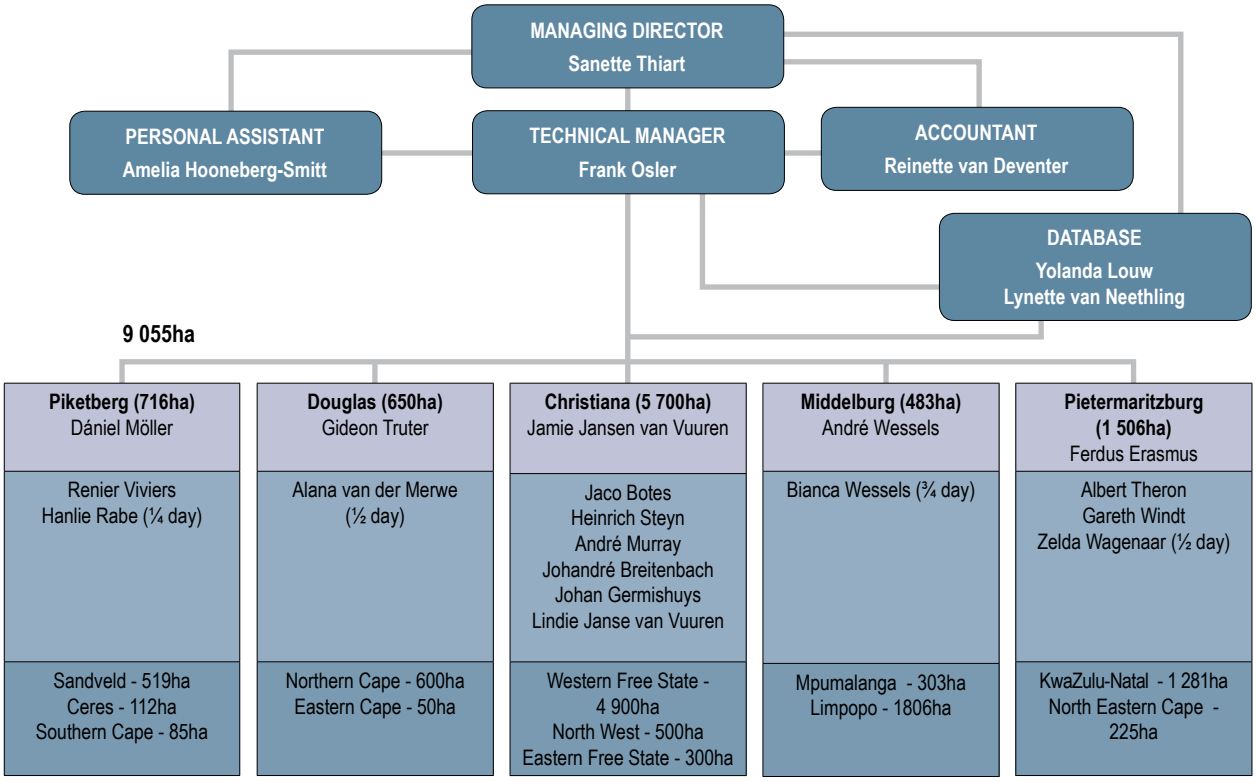


Figure 1: Company Structure

The purpose of certification is to certify seed potatoes of which the phyto-sanitary status in terms of diseases and pests falls within predetermined norms and that are true to type. The Scheme requires each generation of seed potatoes to comply with specific quality standards. In order to ensure the sustainability of seed potato production in South Africa, the Scheme is based on disease-free material (zero tolerance) as starting material.

PERSONNEL

The company's Head Office is located in Potato House in Persequor Technopark, Pretoria, with five regional offices located throughout the country, namely in Piketberg, Douglas, Christiana, Dullstroom and Pietermaritzburg.

The regional offices and staff members are strategically placed in order to render the best possible service in the most affordable manner to growers. The structure of the company is reflected in Figure 1.

BOARD OF DIRECTORS

The company is managed under the guidance of a Board of Directors. The directors comprise of the chairmen of the respective seed production regions, as reflected below in Table 1.

Gerhard Posthumus was appointed Chairman of the Board, with Jakkie Mellet as Vice-Chairman. The Board Charter is reviewed and confirmed annually.

Table 1: Board of Directors

DIRECTOR	POSITION	REPRESENTATIVE FOR
Gerhard Posthumus	Chairman	Western Free State
Jakkie Mellet	Vice-Chairman	Mpumalanga, Limpopo
Llewellyn de Kock	Director	Ceres
Niekie Visser	Director	Sandveld
JJ van de Velde	Director	KwaZulu-Natal
Van der Spuy Botes*	Director	Northern Cape
André Coetzee	Director	Northern Cape
Frans Engelbrecht	Director	North West
Paul van Niekerk*	Director	Eastern Free State
Guybon Osler	Director	Eastern Free State
Garrick Christiane	Director	North Eastern Cape
Sanette Thiart	Managing Director	Potato Certification Service

*Resigned

INDEPENDENT CERTIFICATION COUNCIL FOR SEED POTATOES (ICCSP)

The Independent Certification Council for Seed Potatoes (ICCSP) is designated as the authority by the Minister of Agriculture, Forestry and Fisheries. The Council comprises of democratically elected seed potato growers, representative of the respective production areas; two table potato producers appointed by PSA; the Agricultural Research Council (ARC); a representative of the Nucleus Material Producers (NUMPRO), a representative from Potato Laboratory Services (PLS) and the managing director of PCS. The Council has an independent chairman, appointed by the seed growers serving on the ICCSP. Representatives of the Department of Agriculture, Forestry and Fisheries (DAFF) attend Council meetings but do not have voting rights. Table 2 below reflects the present composition of the ICCSP.

Table 2: Composition of the Council

COUNCIL MEMBER	POSITION	REPRESENTATIVE FOR
Dr Dave Keetch	Chairman	Independent
Adv. Les Kügel	Chairman (Shadow)	Independent
Gerhard Posthumus	Vice-Chairman	Western Free State
JJ van de Velde	Member	KwaZulu-Natal
Jakkie Mellet	Member	Mpumalanga and Limpopo
Johan Greyling	Member	Western Free State
Van der Spuy Botes*	Member	North- and Eastern Cape
André Coetzee	Member	North- and Eastern Cape
Niekie Visser	Member	Sandveld
Llewellyn de Kock	Member	Ceres
Frans Engelbrecht	Member	North West
Paul van Niekerk*	Member	Eastern Free State
Guybon Osler	Member	Eastern Free State
Garrick Christiane	Member	North Eastern Cape
Sanette Thiart	Member	Potato Certification Service
Marieta Botha	Member	Potato Laboratory Services
Dr Diedrich Visser	Member	Agricultural Research Council
Dawie Ras	Member	NUMPRO
Jan van Zyl	Member	Table potato producers
Rudi Heinlein	Member	Table potato producers

*Resigned

The seed potato growers are organised in regional seed potato grower meetings, which in turn, have representation on both the Council and the National Seed Potato Committee in terms of the number of hectares registered, the number of bags certified, as well as the number of seed growers per region. During the period under review, Messrs. Van der Spuy Botes and Paul van Niekerk resigned and Messrs. André Coetzee and Guybon Osler from the North- and Eastern Cape and Eastern Free State respectively were appointed. Mr. Garrick Christiane is appointed as member representative of the North-Eastern Cape.

Dr. Dave Keetch, served as Independent Chairman, since the establishment of the ICCSP. Dr. Keetch is assisted by Advocate Les Kügel, who was named his successor.

The Council is responsible for the formulation of policy guidelines in respect of the Scheme, as well as to ensure that the Scheme is run efficiently and sustainably in the interest of the potato industry as a whole. It is furthermore the ICCSP's duty to continually evaluate the Scheme in order to introduce amendments in the interests of the potato industry. The evaluation of the Scheme in legal terms received special attention in the last year. The PCS Management, in collaboration with the Council and a team of legal councillors, finalized the amendments to the Scheme and submitted it for consideration and publication.

REGIONAL SEED GROWER MEETINGS

Regional seed grower meetings ensure communication from ground level upwards to the various organisations responsible for the different aspects that need to be addressed, as well as communication and feedback down to ground level. The Chairmen are elected by the growers in the region to serve as the mouthpiece of that specific region and to serve on the National Seed Potato Committee, the ICCSP, as well as the PCS Board of Directors.

The North Eastern Cape qualified for representation on the National Seed Potato Committee and therefor also on the Independent Certification Council for Seed Potatoes and the Board of Directors of Potato Certification Service.

NATIONAL SEED POTATO COMMITTEE

The National Seed Potato Committee is a committee of PSA and considers matters related to the seed potato industry and the demand for seed potatoes and issues related to the trade in seed potatoes. The identification of research and marketing needs in respect of seed potato production is also the committee's responsibility. The committee furthermore makes recommendations to the ICCSP with regard to national requirements in respect of the certification of seed potatoes and proposes amendments to the Scheme. PCS is responsible for the administration of the National Seed Potato Committee.

The Chairman of the Seed Potato Traders' Forum or delegated person attends the National Seed Potato Committee meetings as an observer, in order to address the interests of seed potato traders.

The Chairman of the Seed Potato Growers' Forum is also Chairman of the National Seed Potato Committee and represents the seed potato industry on the National Council and Board of Directors of PSA.

Table 3 indicates the members of the National Seed Potato Committee.

Table 3: National Seed Potato Committee

COMMITTEE MEMBER	POSITION	REPRESENTATIVE FOR
Llewellyn de Kock	Chairman	Ceres
Gerhard Posthumus	Vice-Chairman	Western Free State
JJ van de Velde	Member	KwaZulu-Natal
Van der Spuy Botes*	Member	North- and Eastern Cape
André Coetzee	Member	North- and Eastern Cape
Johan Greyling	Member	Western Free State
Niekie Visser	Member	Sandveld
Jakkie Mellet	Member	Mpumalanga and Limpopo
Frans Engelbrecht	Member	North West
Paul van Niekerk*	Member	Eastern Free State
Guybon Osler	Member	Eastern Free State
Garrick Christiane	Member	North Eastern Cape
Jan van Zyl	Member	Table producer
Rudi Heinlein	Member	Table producer
Neels Marais	Observer	Seed Potato Traders' Forum

*Resigned

A seed potato production region qualifies for one member of the National Seed Potato Committee if the region complies with two of the following criteria: When the region certifies 50 000 x 25 kg units and more in terms of the Scheme for at least two consecutive years; Where the region registers 100 hectares and more for seed potato production in terms of the Scheme for at least two consecutive years; Where five and more seed potato growers in the region register for seed potato production in terms of the Scheme for at least two consecutive years. A region qualifies for an additional member if it registers more than 2000 hectares for seed potato production and it certifies more than a million units for two consecutive years. When such a region no longer complies with the requirements for two consecutive years, the right to a second committee member falls away. The Western Free State is the only region that currently complies with the criteria for a second member.

Mnr. Llewellyn de Kock was elected as Chairman of the National Seed Potato Committee and the Seed Potato Growers' Forum. Mr. Gerhard Posthumus serves as Vice-Chairman. The two-year term expires at PSA's Congress and the Seed Potato Growers' Forum in 2017.




SEED POTATO GROWERS' FORUM

The Seed Potato Growers' Forum serves as a discussion forum in respect of resolutions related to the seed potato industry. The Forum is responsible for the:

- determination of needs within the seed potato industry;
- identification of research needs;
- identification of needs in respect of the certification of seed potatoes;
- identification of needs in respect of the selling of seed potatoes;
- making recommendations to the National Seed Potato Committee and the ICCSP with regard to amendments to the Scheme;
- referral of resolutions to the respective committees; and
- for the dissemination of information.

The seventeenth annual Seed Potato Growers' Forum was held in Cape Town, Western Cape, on 29 September 2015. The respective chairpersons of the National Seed Potato Committee, Potato Laboratory Services and the PCS Board of Directors provided feedback on the activities of the past year. The focus of the Forum was on soil health.

Mr. Craig MacFarlane from Logh Buighe Farm (N127) was awarded the Bayer CropScience Seed Potato Grower of the Year Trophy, with Mr. JP van den Berg (L017) and Mr. Fritz Carstens from SBK Boerdery (S056) as runners-up.

SEED POTATO CERTIFICATION

During the period under review, 9 852 hectares were registered (planting date), which included 68 hectares registered for mini tuber production. For the past four years, the number of hectares registered for seed production constituted less than 10 000 hectares. During the period under review, the budgeted income was based on 9 055 hectares to be registered, but 9 933 hectares (invoice date) were registered – which was 878 hectares more than originally budgeted for.

Table 4 indicates the hectares registered per production region for the planting dates, 1 July until 30 June each year. The hectares in the Sandveld and Ceres dropped to an all-time low.

The Western Free State region currently certifies 41.6% of the seed potatoes produced in South Africa. Not all the seed potatoes from the hectares registered in the period under review have been certified. KwaZulu-Natal is usually the region that contributes the second largest portion of certified seed potatoes to the industry, followed by North West (see Table 5). For the year to date, Northwest has certified the most after Western Free State. The production data, as indicated, reflects the actual number of 25 kg bags that were certified on the registered hectares as indicated in Table 4.

The certified yield varied between 5.3 and 7 million bags over the past 10 years, as far as Generations 1 to 8 and Standard Grade were concerned (see Table 5 and Figure 2). The average certified yield per hectare has increased from 14.2 tons per hectare (571 x 25 kg bags/ha) a decade ago to an average of 18 tons per hectare (719 x 25 kg bags/ha). This is the highest ever.

Table 4: Number of registered hectares in seed potato production areas

REGION	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016*
Sandveld	2 505	2 188	2 094	1 527	1 708	1 150	728	438	481	644	339
Ceres	254	281	303	287	234	245	233	248	160	126	37
Southern Cape	90	97	135	144	97	95	101	106	89	76	148
Northern Cape	1 173	1 081	996	790	858	1 129	1 115	630	581	674	849
Western Free State	2 913	3 420	3 679	3 719	4 055	4 199	4 535	4 446	4 608	4 961	4 996
North West	439	366	417	410	620	521	525	461	424	509	597
Mpumalanga	700	628	519	426	423	541	578	443	464	468	365
Eastern Free State	149	166	37	18	144	231	249	234	160	296	273
Limpopo	54	42	42	36	63	143	20	68	90	207	126
KwaZulu-Natal	1 778	1 986	1 664	1 524	1 787	1 915	2 016	1 655	1 401	1 432	1 417
North Eastern Cape	61	46	92	93	172	224	267	186	260	336	541
Gauteng			14								1
Eastern Cape	17	27	2	2	6	21	25	83	54	51	95
South Western Cape											
Total (Hectares)	**10 134**	**10 328**	**9 994**	**8 976**	**10 167**	**10 415**	**10 393**	**8 998**	**8 772**	**9 780**	**9 784**

Note: Period planted - 1 July to 30 June

*Incomplete

Table 5: Certified 25 kg bags of seed potatoes in the respective seed potato production areas (G1 – G8 & Standard Grade)

REGION	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016*
Sandveld	1 175 407	1 080 278	987 511	802 415	796 610	470 504	271 964	175 556	330 734	297 850	22 378
Ceres	201 502	163 959	163 919	91 208	137 162	116 233	134 887	57 819	104 826	37 036	34 150
Southern Cape	57 388	52 933	55 119	63 114	55 689	54 329	48 832	48 483	47 908	65 439	53 006
Northern Cape	437 486	390 493	299 101	218 762	307 653	504 215	505 856	315 802	385 875	491 597	381 572
Western Free State	1 715 749	1 696 116	2 054 442	2 245 981	2 338 402	2 208 216	2 288 561	2 321 196	2 963 864	2 923 555	3 122 955
North West	269 313	287 896	502 014	553 995	551 015	565 071	737 251	793 147	887 115	973 588	986 086
Mpumalanga	355 221	415 149	402 792	245 763	294 841	413 475	446 813	266 069	362 545	389 632	211 051
Eastern Free State	36 187	34 618	18 926	15 947	64 954	88 577	96 909	126 673	119 294	235 853	72 938
Limpopo	38 244	7 647	55 173	16 907	50 735	81 355	16 200	80 405	76 108	171 558	44 182
KwaZulu-Natal	1 466 788	1 174 649	1 236 151	1 292 496	1 696 776	1 428 962	1 337 837	1 256 036	1 029 918	1 081 961	729 759
North Eastern Cape	22 180	19 558	40 840	67 746	149 838	145 885	81 251	91 505	182 805	336 952	162 695
Gauteng											22
Eastern Cape	8 621		219	437	3 129	9 067	13 104	24 816	20 887	29 538	68 591
South Western Cape											
Total (25 kg Bags)	**5 784 086**	**5 323 296**	**5 816 207**	**5 614 771**	**6 446 804**	**6 085 889**	**5 979 465**	**5 557 507**	**6 511 879**	**7 034 559**	**5 889 385**

Note: Period planted - 1 July to 30 June

*Incomplete

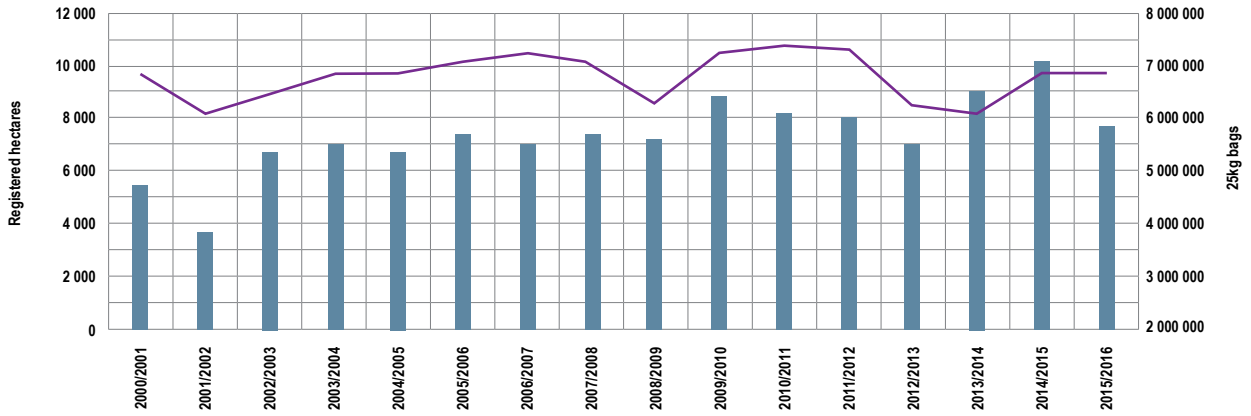


Figure 2: Registered hectares (G0 to G7) and certified yield (G1 to G8 and Standard Grade)

Figure 3 below indicates the number of mini tubers produced on the units registered for the period 1 July to 30 June the next year. All mini tuber plantings registered during 2015/2016 have not yet been harvested, therefore this production figure will still change. For the last two complete years, more than 11 million mini tubers have been certified per year.

At present, there are eight mini tuber production facilities that are approved by the ICCSP. They are Rascal Seed Research Laboratories, Potato Seed Production, Advanced Potato Propagation, Ceres Aartappels, JH Laubscher Broers, Super Spud Seed Potatoes, Maluti Mini Tubers and Griekwaland-Wes Bpk. These facilities either produce their own *in vitro* plantlets or obtain them

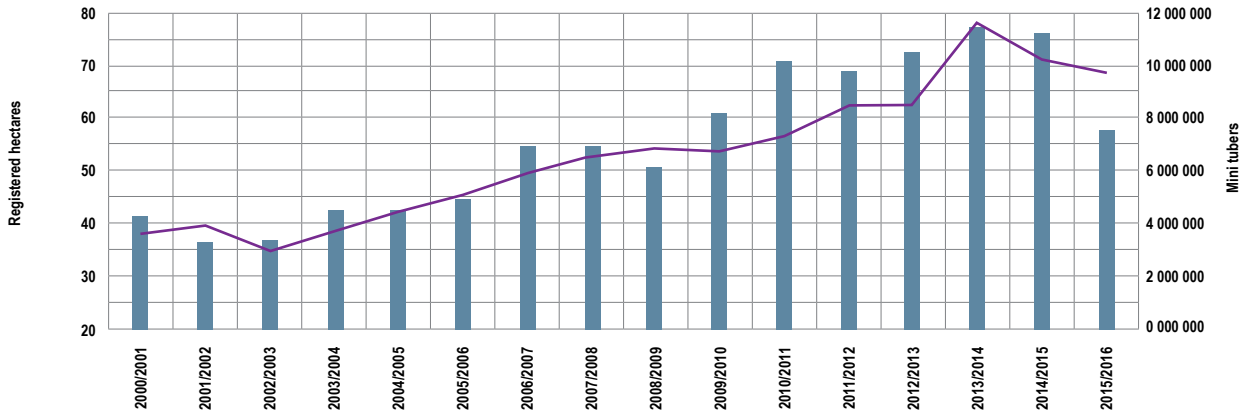
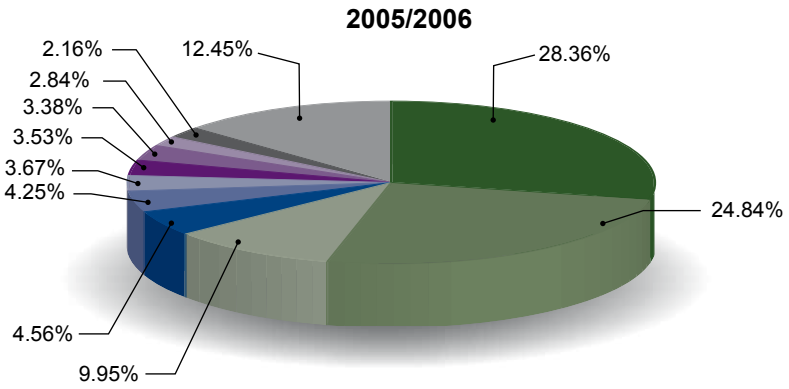


Figure 3: Registered hectares and certified yield for Generation 0 (mini tubers)

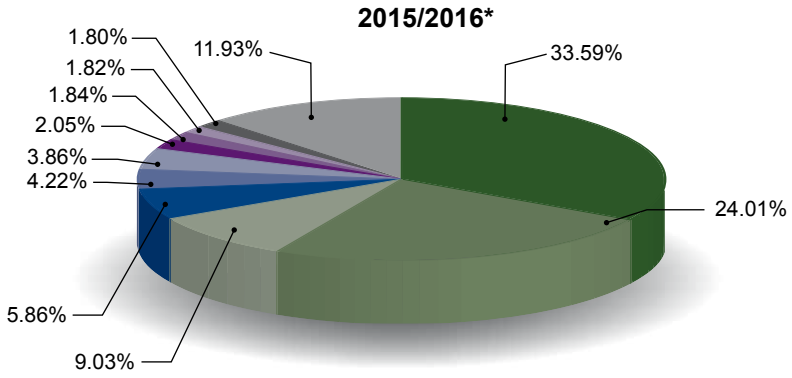
from ARC or Ansabi Mass. The base of disease free material (see Figure 3), as the point of departure, is therefore becoming broader. This is also reflected by the increased number of Generation 1 to Generation 4 seed potatoes certified during the past decade (see Figures 8 and 9).

If one looks at the cultivar distribution of the top ten varieties that were certified during the past ten years, as reflected in Figures 4 and 5 below, it is clear that tremendous changes took place. Where BP1 was the second largest planted variety ten years ago, it does not feature amongst the top ten this year. The top ten



VARIETY	25 KG BAGS
Mondial	1 640 396
BP1	1 436 889
Up-to-Date	575 438
Darius	263 899
Buffelspoort	246 042
Fianna	212 474
Pentland Dell	204 307
Fabula	195 653
Vanderplank	164 116
Platina	124 782
Other varieties	720 090
TOTAL	**5 784 086**

Figure 4: Cultivar distribution as in 2005/2006



VARIETY	25 KG BAGS
Mondial	1 977 955
Sifra	1 414 062
Lanorma	531 699
FL 2108	345 411
Valor	248 430
Innovator	227 527
Panamera	120 885
Up-to-Date	108 093
Electra	106 918
Markies	105 754
Other varieties	702 651
TOTAL	**5 889 385**

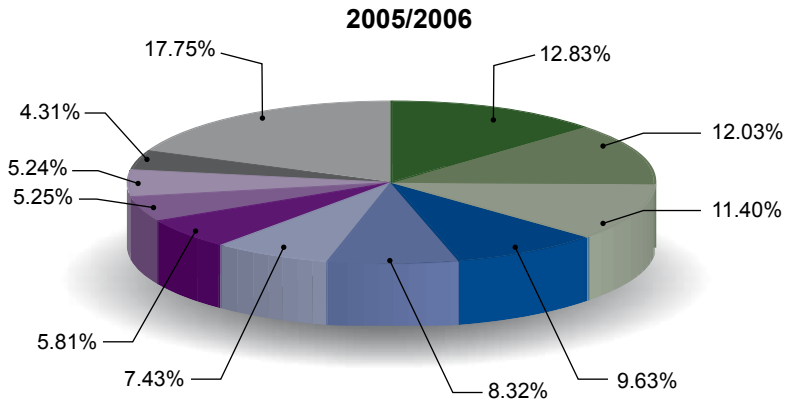
Figure 5: Cultivar distribution as in 2015/2016*

*Incomplete



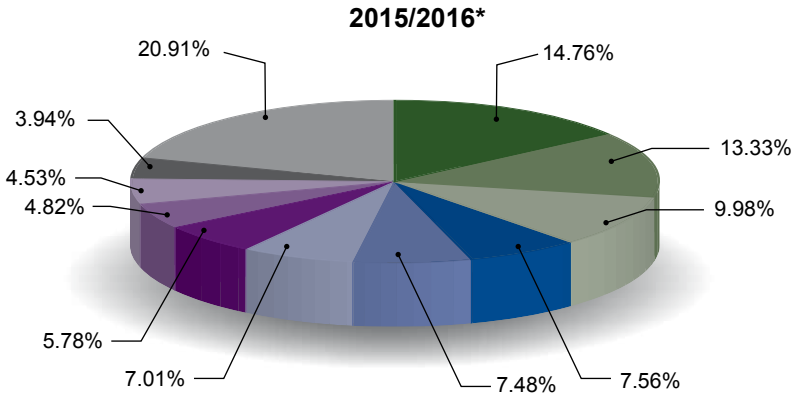

varieties consist of varieties with Plant Breeders' Rights, except for Mondial and Up-to-Date.

The other smaller varieties planted are indicated in Figure 6 (2005/2006) and Figure 7 (2015/2016*). Ten years ago, there were still three sub-licence cultivars, namely Caren, Eryn and Mnandi, but during the period under review only Darius was amongst the smaller noteworthy varieties.



VARIETY	25 KG BAGS
Caren	92 393
Hertha	86 613
Hermes	82 062
Shepody	69 355
Eryn	59 876
Mnandi	53 493
Lady Rosetta	41 871
Astrid	37 829
Santana	37 729
FL 2006	31 068
Other smaller varieties	127 801
TOTAL	**720 090**

Figure 6: Composition of other smaller varieties in 2005/2006



VARIETY	25 KG BAGS
Fianna	103 113
Savanna	93 684
Hertha	70 125
Fabula	53 101
Avalanche	52 552
Almera	49 244
Taisiya	40 580
Vanderplank	33 868
Darius	31 818
BP1	27 651
Other smaller varieties	146 915
TOTAL	**702 651**

Figure 7: Composition of other smaller varieties in 2015/2016*

*Incomplete

The generation distribution indicates that Generation 1 to Generation 4 seed potatoes forms the biggest portion of certified seed potatoes, with the amount of G6, G7, G8 and Standard Grade certified, decreasing all the time. This is a clear indication that the seed potato industry is very dynamic; there are much more early generation seed potatoes available. These figures might change slightly as the final number of bags of seed potatoes certified on the plantings registered in June 2016 is not yet available. The generation distribution is indicated in Figure 8 and Figure 9.

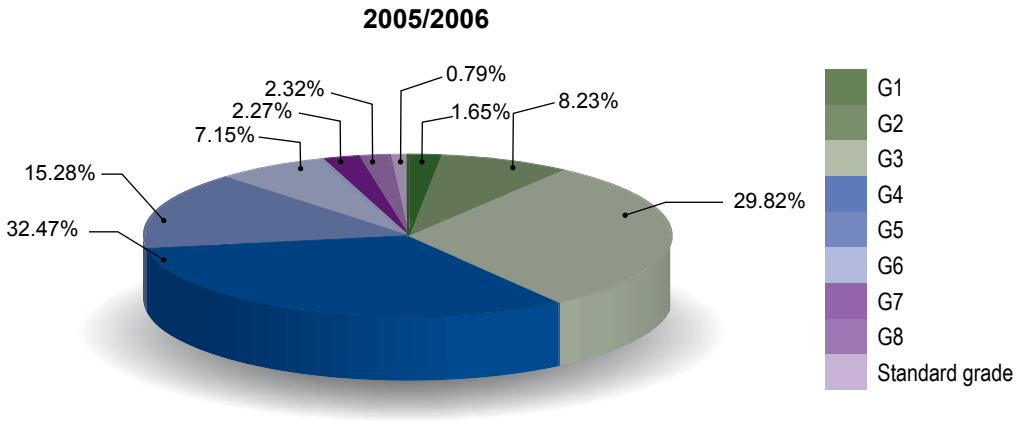


Figure 8: Generation distribution in 2005/2006

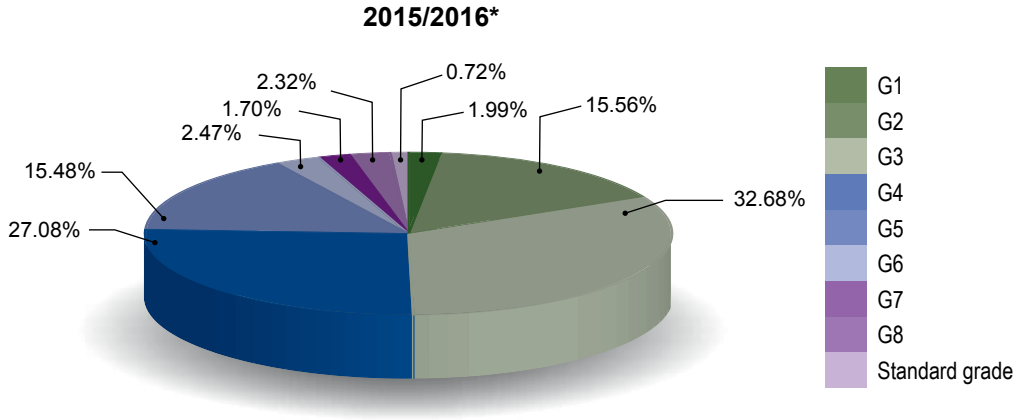


Figure 9: Generation distribution in 2015/2016*

*Incomplete

At the Council meeting held in June 2016, voluntary downgrading by more than one generation and class were approved after the dispensation came to an end and the Scheme will be amended accordingly.

With regard to diseases, it is concerning that the number of virus samples that tested free from virus diseases is decreasing gradually, but has improved slightly with regards to PVY, as is indicated in Figure 10. It is however concerning that the occurrence of Potato Leaf Roll Virus is still increasing.

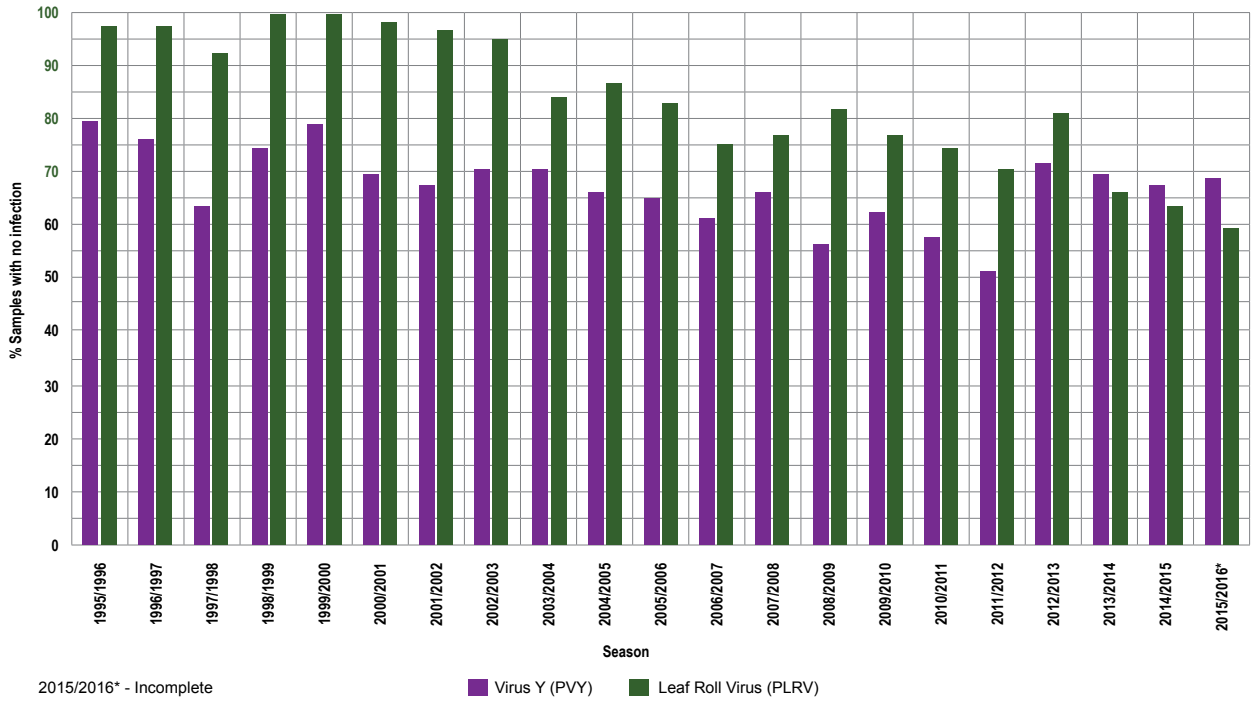


Figure 10: RSA: VIRUS OCCURRENCE (Field samples: G0 – G7 planted)

During 2014/2015 (full reporting year), no potatoes with Potato Tuber Necrotic Ringspot Disease (PTNRD) were found during 2 847 tuber inspections conducted.

As part of the dispensation for the treatment of seed potatoes for silver scurf/black dot, record is kept in respect of all certified seed potatoes treated in order to use this data for motivation when the dispensation expires in November 2017. During 2014/2015 (complete year) 744 293 x 25 kg bags of certified seed potatoes were treated. Most regions treated seed potatoes, except the Northern Cape, Western Free State, North West and Eastern Cape. No complaints were received with regards to treated seed potatoes.

In the reporting year, no *Ralstonia solanacearum*, the bacterial wilt-causing organism, was found in seed potato plantings.

The Potato Quarantine Pest Committee, under the chairmanship of the Directorate Inspection Services, Department of Agriculture, Forestry and Fisheries, is the watchdog of the potato industry with regard to quarantine pests. Bacterial wilt, caused by *Ralstonia solanacearum*, Potato Cyst Nematode (PCN), (*Globodera rostochiensis*) and wart disease, caused by *Synchytrium endobioticum*, are officially controlled in terms of the South African Seed Potato Certification Scheme. Import regulations and biosecurity also falls under the jurisdiction of this committee.

The Scheme is based on phyto-sanitary status, as well as variety purity. Mixing of varieties was only found in 0.43% of all seed certified. Where mixing took place, the growers were notified in writing and the necessary corrective action was instituted. Out of the 7 million bags certified, mixing detected affected only 30 061 bags.

Owners or agents of varieties, as well as the seed potato growers of South Africa requested that the term for protection in terms of Plant Breeders' Rights be extended from 20 to 30 years for all varieties, irrespective of whether it is already listed or not, in order to bring the national regulations in line with international standards. The finalisation of the process is still awaited.

PCS serves as the link between the potato testing laboratories and the seed potato growers of South Africa. Therefore, PCS forms an integral part of the Potato Laboratory Services Technical Committee where matters of common interest are discussed under the Chairmanship of Dr. Keetch, as Chairman of the ICCSP.

PCS had the privilege of hosting the UNECE Bureau and Rapporteurs meeting of the Specialized Section on Seed Potatoes in Kimberley, from 13 to 18 March 2016. Twenty-three delegates from 15 countries attended the meeting. Countries represented were Scotland, Italy, France, Germany, Sweden, Finland, Australia, New Zealand, United States of America, United Kingdom, Kenya, Czech Republic, Netherlands, Belgium and of course South Africa. Besides carrying on with the activities of the Specialized Section, we had the privilege of showcasing the facilities of GWK and Wesgrow to our certification counterparts. Needless to say that they were very impressed.

South Africa has a scheme that is scientifically proven, technically justified and credible, which ensures high-quality certified plant material for the potato industry. The scheme is implemented by qualified personnel, backed by laboratory results generated by approved testing facilities. The planting of certified seed potatoes is the best way to ensure high yields of excellent quality, which leads to profitable crops and sustainable food security.

Please visit www.potatocertification.co.za.














POTATO LABORATORY SERVICES

21 YEARS

JOHAN VAN DEN HEEVER
CHAIRPERSON

POTATO LABORATORY SERVICES
21 YEARS

MARIETA BOTHA
CHIEF EXECUTIVE OFFICER

On 2 May 2016, Potato Laboratory Services (PLS) celebrated its 21st birthday. It is therefore inevitable to retrace the footsteps of those who we may have forgotten over time - the pioneers who started it all.

We must be reminded of the dream and aspirations they had for our industry. We hope that in the daily struggle against the realities of science and the challenge of successful farming, we didn't let them down.

In a nutshell follows a report of the founding, history and technical highlights since the establishment of PLS. Insertions in italics are from former Industry reports and/or minutes of PLS/Plantovita Directors' or Advisory Committee meetings. It is possible that names of businesses or structures could have changed over time. Extractions should be read in context of the concerned period.

1995

PLS was established on 2 May 1995 to provide laboratory services to the agricultural industry. The entire company belonged to the Potato Producers Organisation. (PPO)

The founder members were: JG de Jager, JJ van Vuuren, JF van der Merwe, PJ Laubscher, G Armstrong, CJ du Toit, S Hyman and JG Jacobs. M Vermeulen was the Secretary.

Mission: To provide optimal laboratory services to the industry;

- based on scientific values
- performed by qualified and competent technologists
- managed by healthy economic values
- taking the trust and needs of clients and the company into consideration

Company Registration
26/05/1995

FOUNDER MEMBERS 1995

J van Vuuren

JF van der Merwe

1996 - 1999

The first PLS Directors' meeting took place on 26 April 1996. At this stage, JG de Jager and JJ van Vuuren were the only listed directors.

The Advisory Committee was established on the same day. The task of this committee was: *To coordinate the activities of the laboratories as such that the testing of the material is performed on a set standard with the purpose to improve the quality of material in the industry, without interfering with the identity of the laboratories.*

Members of this committee were: JG de Jager, JJ van Vuuren, JG Jacobs, C Tweedale, H van Lill, P Marais, N Marais, M Jordaan, M Smit, PF Nortjé and DJ Theron. C Trent and E Els were responsible for the administration. DJ Theron was the Manager of Laboratory Services.

The regional laboratories, as known today, already existed.

The term Potato Laboratory Services (PLS) refers to the companies as a group and does not influence individual ownership. In the South African potato industry, there are five laboratory companies which conduct tests to determine the disease status of seed potatoes. Each of these laboratories is situated strategically with a view to serving a specific production area. Each company functions as a private entity, under the leadership of a Board of Directors that meets bi-annually . With the exception of Western Free State Laboratory Services, the Manager: Potato Laboratory Services is responsible for the financial and technical management of the regional laboratories.

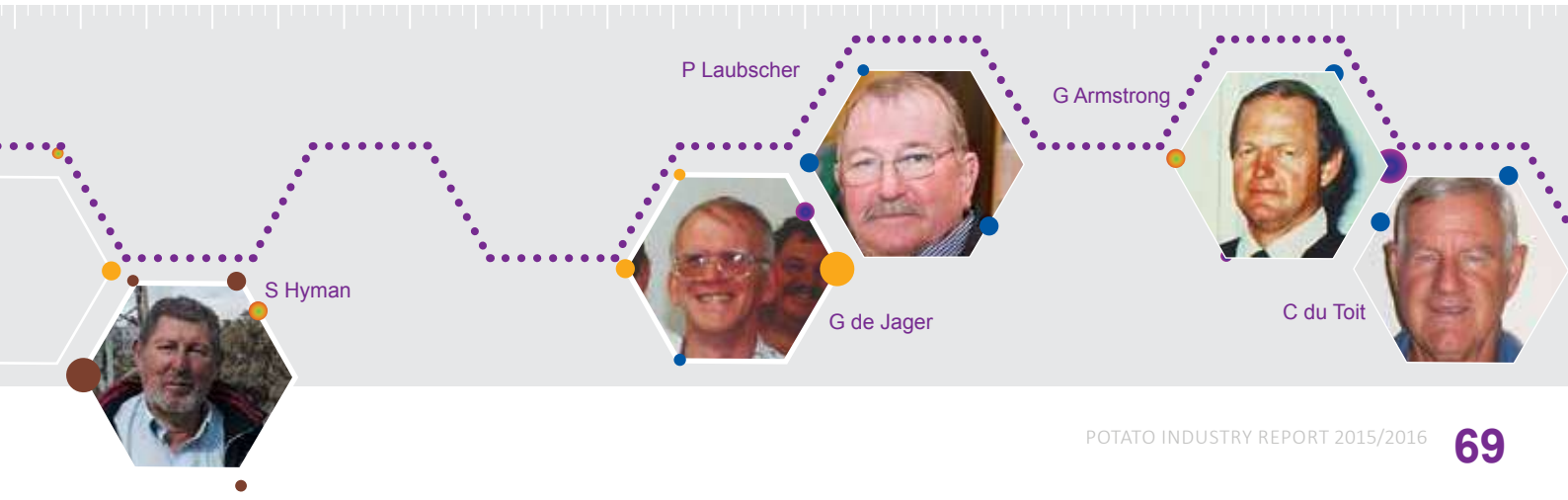
Location of the laboratories

Sandveld Laboratory Services (Pty) Ltd, situated at Piketberg, is the property of the Sandveld seed potato growers. This is the only laboratory within PLS that still has the expertise and facilities to test for Golden Cyst nematode. Disputes declared, based on the virus results of field samples tested at the controlling laboratory, are retested by the Sandveld Laboratory as this laboratory is operational throughout the year and the experience regarding the Elisa test is on a high level.

Northern Cape Laboratory Services (Pty) Ltd, owned by GWK Limited, is situated at Douglas. The testing season in this region is intense, but of short duration. Retaining technical staff in the rural regions remains a challenge. However, this laboratory could always manage to employ highly skilled technologist.

KwaZulu-Natal Laboratory Services (Pty) Ltd, situated in Pietermaritzburg, belongs to the KwaZulu-Natal seed potato growers. The growers have individual shares in the company, depending on the number of hectares they cultivate and how actively they are involved in producing seed potatoes. This laboratory handles huge volumes of work over short periods, but is efficiently equipped to handle the work load. The technologist manages the workload in a remarkable manner.

The laboratory at Christiana belongs to the Western Free State Seed Potato Growers (Pty) Ltd. This independently-managed laboratory also handles huge volumes of work, but is equipped to handle it with ease. Testing is done with enthusiasm, integrity and commitment. Regardless of the independent management of this laboratory,the staff fits perfectly into the PLS family.



The Coen Bezuidenhout Seed Test Centre (Pty) Ltd (CBS) is the property of the Dry Bean Producers' Organisation and is situated outside Pretoria. The centre also fulfils the role of controlling laboratory in Potato Laboratory Services. This means that the training of all technologists, the application and control of quality systems nationally , technical support, as well as the solving of technical problems form part of the centre's functions. The CBS boasts a formidable technical team, with not only talent, but also the will to improve the level of service in PLS to international standards.

During this year, congress appointed CBS as the control laboratory of PLS.

For the efficient application and credibility of the scheme, it is necessary to have a centre of expertise where the consistency of the tests by different operators at different laboratories are carried out by means of scientific procedures, training and standardisation.

A grower must be comfortable that:

- The test results in respect of a sample – if it was possible to test the sample at different laboratories at the same time – would be comparable.

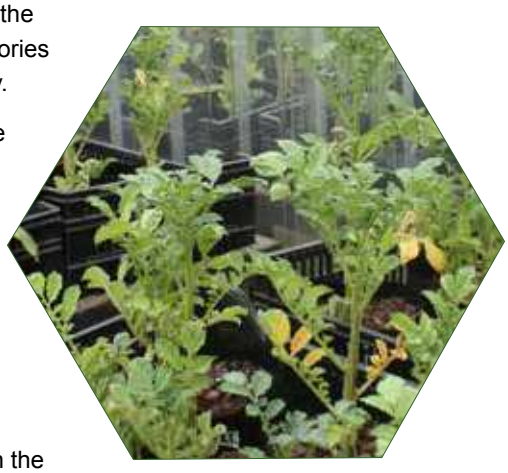
And that –

- The test results will reflect the disease content of the specific sample, with due consideration of the limitations of the Elisa test and the variation in respect of sampling.

The Department approved the first official protocol for the Elisa – testing for Potato Y (PVY) and Potato Leafroll Virus (PLRV). The protocol was implemented at all regional laboratories.

The first PLS workshop took place. It was decided to present the workshop annually with the purpose of training, cooperation and standardisation between regional laboratories.

The annual audit of the participating laboratories became compulsory.



All laboratories were registered at the Potato Producers Organization (PPO) and the Department of Agriculture.

All participating laboratories have been registered with the Department of Agriculture, Forestry and Fisheries for conducting disease tests on plant material. The Principal Laboratory Technician of PLS audits these laboratories annually during the testing season. The controlling laboratory is audited by the Department. In terms of the SANAS requirements, internal audits are also conducted at Plantovita annually and are carried out by the Principal Laboratory Technician. The laboratories apply for approval by the Independent Certification Council for Seed Potatoes' (ICCSP). This approval authorises the laboratories to test for specific diseases, prescribed by the scheme. The results of these tests determine the certification status of the seed potatoes.

JG Jacobs

FIRST PLS WORKSHOP 1996

Clive Trent
(Secretary: 1996 - 2011)

Coen Bezuidenhout †

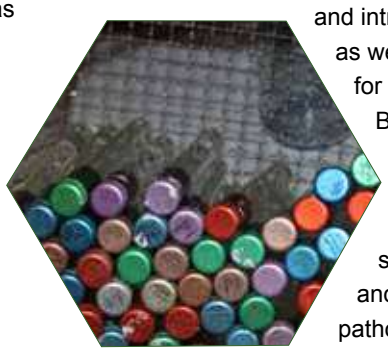
2000

It was decided to appoint the Chairpersons of the individual Boards of Directors form the regional laboratories as PLS Directors. Their task was to represent their laboratories / regions. The following members were appointed as PLS Directors: J van der Spuy Botes (Chairperson), C Tweedale, J Callender – Easby, H van Lill, CP du Toit and Dr DJ Theron. Wes–Vrystaat Moerkwekers was invited to appoint a PLS Director, representing the region / laboratory.

At congress, 91% producers voted for the continuous existence of PLS.

M Botha, a technologist from PLS, visited Bioreba, Switzerland to investigate the use and application of Bioreba Test kits for certification. During the visit problems with the Verticillium Elisa and the availability of Elisa test kits for the detection of Erwinia were addressed.

BIOREBA AG was the first company in the world to produce and commercialise Elisa reagents for plant virus diagnostics in 1980. It is an independent company, established in close collaboration with Agroscope, Switzerland. Since then, BIOREBA cooperated with numerous other research institutes and universities in many countries. Since its foundation more than three decades ago, the company has steadily grown and built a reputation for high quality diagnostics. Today, the research community and diagnostic laboratories around the world rely on our products for testing potatoes, grapevines, fruit trees, small fruits, vegetables, ornamentals and field crops.



Our philosophy is to provide our customers with high quality products and services to address their special, diagnostic questions. Customers benefit from our expert knowledge and long-standing experience in developing and introducing complete Elisa systems, as well as AgriStrip, the rapid assay for the detection of plant pathogens. BIOREBA has well-equipped facilities for R & D activities, the production of these test systems, as well as an accredited testing laboratory for serving customers with serological and molecular analyses of plant pathogens. The company also provides special equipment and disposables for the preparation of plant samples and liquid handling.

BIOREBA products are available worldwide. The sales and marketing department and an extensive distributor-network, ensure a quick response to customer inquiries and prompt product delivery. Our well-trained staff is committed to maintaining high quality standards.

BIOREBA has been awarded the internationally-recognised certificate of Quality Management Systems, ISO 9001. Furthermore, our testing service laboratory has been accredited according to ISO/IEC 17025 for analyses of plant pathogens. Both certificates shall give us the incentive to continue service delivery with best quality products and helping you growing healthy crops.

Due to the growing needs of the commercial laboratories in the ever changing scientific world, it was considered to appoint a researcher at CBS.

OUTGOING PLS BOARD 2011

Back row: Rudie-Lynn Coetzee (Northern Cape), Annalien Snyman (CBS), Marieta Botha (CBS), Anita Swanepoel (CBS), Niel Theron † (PLS Manager), Soreen Gouws (Sandveld)

Front row: Ronel Mulke (Northern Cape), Dirk Bellsted (US), Penny Green (KZN)

Van der Spuy Botes (Northern Cape, Chairperson)

Chris Kleingeld (DPO)

Gerhard Posthumus (Wesgrow)

Our Plantovita staff

2001

- CJ Kleingeld was appointed as the Manager of Potato Laboratory Services.
- The national PLS pool was established to even the costs of tests for certification between the regions.
- The three laboratory companies, belonging to PSA, were requested to privatise and to pay back all outstanding loans to PSA.
- PSA sold back its 25% ownership in CBS to the Drybean Producers' Organisation (DPO). Based on a lease agreement with the DPO, PLS laboratory activities continued at CBS.
- Two PLS directors took care of the interests of the potato industry.
- Congress decided that CBS should remain the control laboratory in PLS.

2002

- PLS and Potato Certification Services privatised from PSA. Laboratory services and certification was no longer regarded as the essential business of PSA.
- The Independent Certification Council for Seed Potatoes (ICCSP) was appointed as the highest power in the process of certification.
- The PLS Advisory Committee reports to the ICCSP regarding test issues. Members at this stage were: J van der Spuy Botes, S Hyman, H van Lill, TFJ van Rensburg, C Tweedale, CF Kleingeld and PF Nortjé.
- The position of CBS as the control laboratory in PLS was confirmed by the ICCSP.
- All participating laboratories were approved by the ICCSP to perform tests for certification purposes for the first time.

Gavin Hill
(KwaZulu-Natal)

Desmond Hyman
(CBS)

Mark du Plessis
(PSA)

Johan van Greunen
(Sandveld)

- The structure of PLS determines that the Manager of the Control Laboratory also serves as the Manager of Potato Laboratory Services.
- The individual laboratories were all responsible for financial and administrative management, under the leadership of a Board of Directors.

2003

During an ICCSP meeting, the Advisory Committee recommended that all the regional laboratories should contribute financially to the management of PLS. This entailed specific services by the control laboratory to the regional laboratories. The issue was discussed at ICCSP and approved.

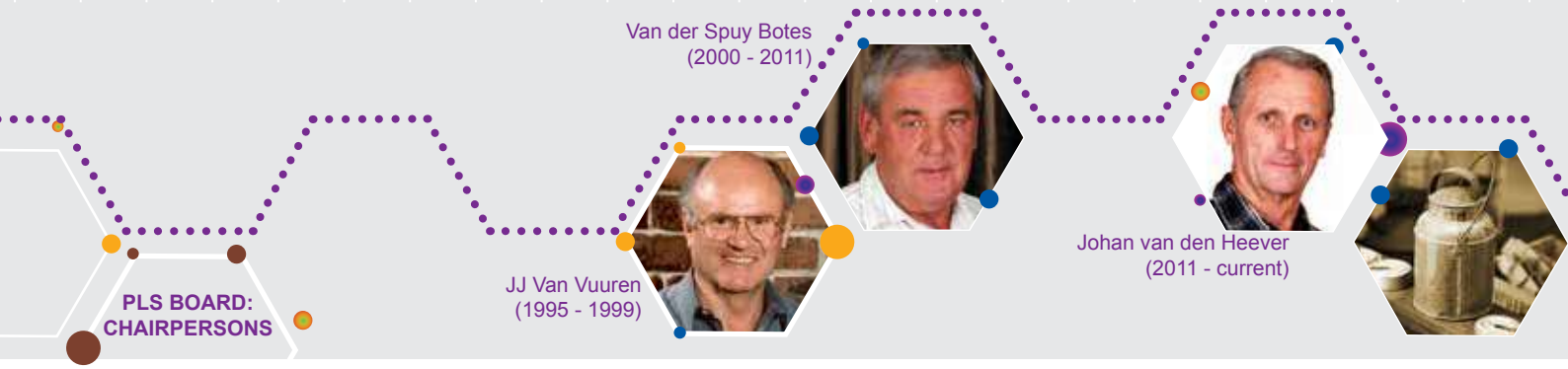
Technical support by the control laboratory includes, but is not limited to the following:

- Management (Chief Excecutive Officer and Technical Manager) of Plantovita represents the laboratories on the highest industry level
- It is the task of Plantovita to make sure that standards set in the testing protocols are implimented and maintained in all the laboratories, by way of annual audits performed during the testing season of a region.
- Competency tests are desigend and evaluated at Plantovita with the purpose to measure standards between the different laboratories.
- Plantovita is responsible for the training for all newly appointed technologists in all the excisting laboratories.
- Continuous training of current technologists is the task of the control laboratory. The annual PLS workshop is such an event.
- It is Plantovita`s job to support, investigate and search for solutions in times of technical difficulties, until the problem has been solved and satisfactoraly addressed.
- Plantovita may make recommendations to the industry regarding specific investigations on diseases and scheme–issues
- The management of Plantovita is a member of the European Virus Worksgroup (EAPR) and represents PLS in this regard internationally.
- If the need arises to make changes to the protocols, Plantovita has the responsibility to conduct the investigations, and to implement the improvements in order to optimilise the test procedures.
- The Technical Manager of the control laboratory has to keep up with national and international disease and test developments and if necessary, make recommendations, identify projects for investigation and present these to the National Research Commitee.
- The control laboratory evaluates all Elisa test results for Bacterial wilt. Only upon approval by the control laboratory may these results be released.
- If for some reason, incorrect test results in regions are suspected, the control laboratory acts as consultant for the investigation and rapport for these results.

2004

PSA registered various projects to investigate the repetitiveness of the Elisa virus - test results, to investigate the test and optimise where needed.

The Coen Bezuidenhout Seedtesting Centre was involved with various Research Projects funded by PSA. Projects' results were valuable and applied as guidelines



for certain decisions regarding the scheme, for example the adaption of the cut–off values for PVY and PLRV.

C Kleingeld, Manager of PLS and PLS management(Dr Pierre Nortjé and Chris du Toit) visited the Netherlands, Scotland and Switzerland to investigate the certifications of potatoes elsewhere in the world.

Polymerase Chain Reaction (PCR), as alternative testing method in PLS, was touched upon for the first time.

When rendering a service, a great danger is stagnation, as well as an inability to address changed needs and issues. In agriculture, with the present deterioration of soil and water quality, increasing disease pressure, resistance of pests, as well as ethical/legal issues and the opening of borders, the Elisa test is insufficient to offer the answers and solutions for the long-term sustaining of a healthy, high-quality product in the interests of the total industry.

What was needed in PLS, in addition to the available techniques, to increase the service levels?

The implementation of a trustworthy, proven and reliable technology which –

- can support the Elisa test to optimise the service to the industry;
- saves time when the grower cannot afford to wait for the Elisa results for management, economic and practical considerations;
- can be applied in urgent investigations after an unexpected and symptomless infestation of plantings by a known or unknown pathogen and even for the tracing of the sources of the infestation concerned – including sources other than vegetative sources; and
- can trace low levels of disease infestation in tubers and can identify the pathogen concerned to support the grower/region regarding decision-making in respect of specific problems, as well as the use of a turn-around strategic programme.

This technology is known as Polymerase Chain Reaction (PCR). By means of PCR, living or dead organisms in high or low concentrations, as well as races, subspecies and biovars can be traced by amplifying the nucleic acid of the organism to traceable levels. PCR technology was already introduced to the world in 1985 and is used with great success in all sciences (medical, forensic and natural).

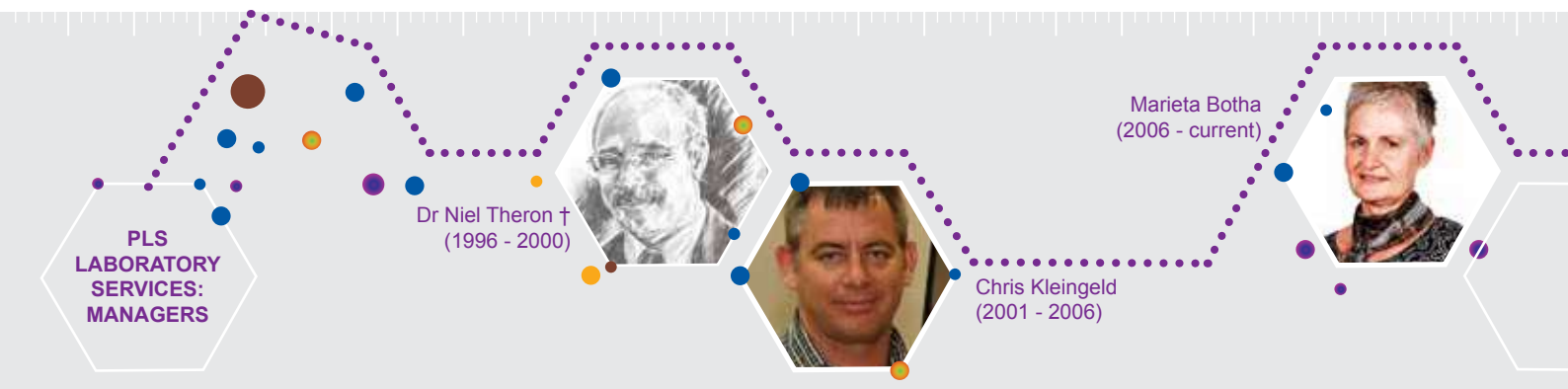
PCR technology is the ideal methodology to reinforce and to support the individual grower, the industry and the available Elisa test as well as optimising services to address the present shortcomings, actual problems and issues.

2005 - 2006

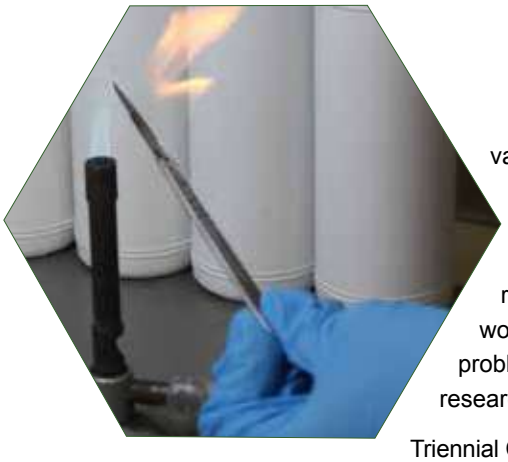
M Botha was appointed as Manager of Potato Laboratory Services and A Espach was promoted to the position of technical manager.

Positive Elisa virus readings were detected in technitubers imported via Technico from China and India. The national testing protocol and technologies were investigated and evaluated by the following panel:

Dr G Pietersen	Virologist: LNR
Dr G Thompson	Virologist: LNR
Dr W Bitterlin	Bioreba, Switzerland
Prof D Bellsted	Immunologist, US
Russel Cant (Technico Australia)	Technico: Australia
Dr Ben Pieterse (Research: ASA)	Research: ASA
Nolan Afrikander (Department of Agriculture)	Department of Agriculture
C Arendse (Department of Agriculture)	Department of Agriculture



After extensive discussion and evaluation of the tests, results and protocol; the panel concluded that the PLS protocol for the Elisa detection for viruses / diseases is reliable and complies with international standards.



2007

M Botha and A Espach became members of the European Virus Workgroups after attending EAPR 2007 in Scotland. Hereafter, South Africa became involved in an international survey of PVY strains.

EAPR (The European Association for Potato Research)

The Association has the following aims:

- To promote the exchange between various countries, both in and outside Europe, of scientific and general information relating to all facets of potato growing and utilisation;
- To encourage and assist international cooperation in this field.

These aims are achieved through:

Sections: From its founding, EAPR has been enhanced by the activities of the sections which have performed the invaluable function of promoting interchange of knowledge within specific disciplines. The association has five sections, including agronomy, breeding and varietal assessment, post-harvest, pathology and pests, physiology and virology. The sections meet regularly to discuss problems and results of research. They set up working groups for the study of special problems, for standardising methods of research or terminology, etc.

Triennial Conferences: Every three years, the Association organises a conference in a different European country. During these conferences lecture sessions are held and there are excursions and partners' programmes. The conferences offer the opportunity for those interested in the potato crop to meet colleagues from all over the world, engaged in every type of work, relating to the potato crop.

2008 - 2009

The Dr Neil Theron floating trophy was presented for the first time in PLS for excellent performance by a regional laboratory, a test department or individual of PLS.

To continously motivate the PLS staff to excell in performance in spite of deadly routine, excessive work pressure and even undeserved critsism; remains a challenge. If all the laboratories perform the same routinely tasks and the pressure varies between regions, how does one create healthy competition and how do you reward exceptional performance ?

In 2008 Marieta Botha, Manager: PLS, realised that the late Dr Niel Theron deserved acknowledgement for his pioneer work in PLS. As a former PLS technologist at the Coen Bezuidenhout Saadtoetssentrum. Marieta was part of the evolution process and therefore knew that the value PLS added and that the growing expertice

PLS Personnel: 2009

PLS Personnel: 2012

PLANTOVITA/ PLS BOARD: 2016

Johan van den Heever (Chairperson Independent)

Chris Kleingeld (DPO)

were fruits of the vision, commitment and work pride of Dr Theron.

An award would not only give recognition to Dr Theron's contribution to the success of PLS, but would also motivate staff to deliver and excell.

The Dr Niel Theron floating trophee is an annual award to the regional laboratory, excelling in performance. The following criteria are considered:

- The outcome of the annual audit, as well as improvements and implementation of former recommendations. The audit is based om SANAS standards and the reports are presented to the National Advisory Committee, as well as the ICCSP
- Neatness (environment), management (all resources, including staff) and daily planning
- Commitment and ownership
- Application of testing protocol
- Performance and participation in PLS

Due to our close involvement with the regional laboratories, Marieta Botha and Anel Espach, Technical Manager of PLS, act as judges. This is not an easy task, as all laboratories maintain high standards.They are therefore looking for those qualities that distinguish the winner above the rest.

The Protocol for the testing of imported G0 material for Bacterial Diseases for Certification Purposes was developed by Anel Espach of CBS. This protocol was a first in the world and internationally approved. Together with the virus protocol, the Bacterial testing protocol of PLS are internationally recognised.

2010

- Pressure increased on the control laboratory to develop a PCR protocol for application in the South African Seed potato Certification Scheme. The National Seed Growers Committee requested A Espach from PLS and S Thiart from PCS to visit Fera (Scotland) and NAK (Netherlands) to investigate this possibility. CBS started negotiations with the ARC regarding possible laboratory space.
- The importance of the control laboratory, to strengthen the integrity of the certification process, was confirmed. Ownership of CBS as control laboratory came under discussion, as the company at this point belonged fully to the DPO. A change in structure was recommended.
- The disbanding of the PLS pool and the independence of the individual laboratories were touched upon.
- M Botha and A Espach attended EAPR 2010 in Hamar, Norway as members of the European Virus Workgroups.

2011

- Structural changes and the disbandment of the PLS pool were discussed during a special directors' meeting.
- It was recommended that the function / activity in CBS separates from property and that the laboratory function gets established in a new company, Plantovita.

From April 2011, the new name of the former Coen Bezuidenhout Seedtesting Centre became Plantovita. Plantovita is derived from Latin and refers to the vitality and health of plants.

Our Douglas staff

The name- change of the control laboratory went hand in hand with the uptake of 90% shares in the company by the potato seed – industry / the five partaking laboratories within the PLS group. The former owner of the DPO was left with 10% shares.

During negotiations it was decided to allow the uptake of shares only to organisations closely involved with the activities of the company, entitling them to have inputs in budgets and tarrifs.

The number of shares for each shareholder was based on contribution to the income of the company during the past five seasons. Division of profits and losses was determined by ownership of shares, but decisions on budgets and other management issues held equal weight for all shareholders.

The new Board of Directors was representative of the shareholders – one director from each seedgrower region and one director from the DPO. All aspects regarding shares and management were finalised during th November 2012 meeting.

- Expertise and specialist services of CBS were transferred to Plantovita
- Plantovita was confirmed as the industry's control laboratory
- M Botha was appointed as the Chief Executive Officer of Plantovita / PLS
- A Espach was appointed as the Technical Manager of Plantovita / PLS

The following members serve on the Board of Directors:

J van den Heever	Independent Chairperson
D Hyman	Solani Labs
J van Greunen	Sandveld Laboratory Services
J van der Spuy	Northern Cape Laboratory Services
G Posthumus	Wesgrow
JJ van de Velde	KwaZulu-Natal Laboratory Services
Chris Kleingeld	DPO group
Dr Fienie Niederwieser	Manager: Research PSA
Rudie Heinlein	Table Producer

Solani Labs was established to budget unique laboratory registration tariffs for the Mpumalanga / Gauteng / Limpopo / Eastern Free Sate regions and to qualify for shares in Plantovita.

Negotiation with the ARC regarding possible laboratory space for the PCR project caused serious frustration, due to little enthusiasm on the side of the ARC.

The University of Pretoria and the CSIR were also approached for laboratory space.

The PCR project as well as the funding were approved by the Research Committee of PSA.

At this stage, Plantovita already had some small capital items for the PCR laboratory

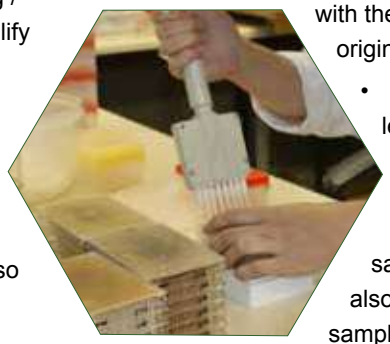
The DPO offered to fund the PCR machine.

PCS requested the documenting of a code of conduct in the PLS protocol with the aim to protect the seed industry. This code determines what a laboratory in PLS may and may not test.

The Code of Conduct is approved by the Directors of Plantovita and applies to all the laboratories in the PLS group. The Code of Conduct stipulates the type of samples that an ICCSP-approved laboratory may test and was added to the official testing protocol on request of PCS, after approval by the Plantovita Board of Directors and ICCSP. Incidents in regions where test results were played off against another, necessitated the documentation of this code.

The Code of Conduct refers to official and non–official samples:

- Official samples are defined as samples registered for certification as well as samples registered under the Table Scheme. Official samples can only be tested at ICCSP-approved laboratories with the provision that these samples originate from registered plantings.
- Unofficial samples refer to leave samples submitted by a grower for virus testing. The results are applied as a management tool. Diagnostic samples (single tubers or plants) also categorise as unofficial samples.



2012

The PLS pool was finally disband at the end of the 2011/2012 financial year.

The administrative company, Potato Laboratory Sevices, finally disbanded on 30 June 2012 and the financial pool did not exist any more. Regions are now responsible to budget for their own PLS registration costs.

Tarrifs for some regions got lower, while other regions

Wesgrow Staff 2016

Wesgrow Staff 2016

Wesgrow Staff 2016

became more expensive as tariffs are now determined by the hectares registered in the region and the budget of the regional laboratory. The balancing function of the pool to even costs between smaller and bigger regions do not exist any more.

Regions contributed to the outstanding capital necessary to test the post control samples at the end of this period.

The PLS Directors, as well as the greater part of the Advisory Committee resigned.

The PLS Directors recommended that the Advisory Committee be replaced by the Technical Committee, existing of the following members:

Marieta Botha	Laboratory Services
Anel Espach	Laboratory Services
Sanet Thiart	Certification Services
Frank Osler	Certification Services
Dr Fienie Niederwieser	PSA Research
Dr Dave Keetch	Chairperson: ICCP

The purpose of the Technical Committee is the following:

- Investigation and discussion of technical issues and recommendations with the ICCPS, and if applicable, the Research Committee.
- Feedback regarding technical issues to the Plantovita Directors who are responsible to report back to their Boards of Directors.

The DPO agreed to the establishment of a complete PCR laboratory, based on international standards, in the current Plantovita laboratory complex.

Plantovita already had the facility, PCR machine and several smaller items.

The project was approved and funded, but capital was still necessary for the complete outfit of the laboratory.

Competency tests, in which all the laboratories partake, became an annual event.

2013

The necessary finances to equip the PCR laboratory and to start the project were still a problem.

The Directors of Plantovita approved that the regional laboratories make a financial contribution to buy the necessary and outstanding equipment for the PCR laboratory, based on an approved budget, presented by the Plantovita's CEO.

Support and attitude are positive in most cases and where possible, regions contributed to the outstanding capital.

Although the PCR project was managed as a Plantovita project, all financial contributions were paid into and managed in a separate banking account.

M Botha and A Esapch attended EAPR 2013 in Anatalya, Turkey as members of the EAPR Virus workgroups.

A website was designed for Plantovita amplifying its own identity as a private company.

2014

A document was drawn up at the request of the Plantovita Board of Directors in which the powers and authorities of the CEO and Technical Manager were confirmed.

The authority could stop a laboratory's testing activities if found that the test or integrity of the Scheme are in any way undermined, until a proper investigation is concluded.

POWERS AND AUTHORITIES OF CHIEF EXCECUTIVE OFFICER (CEO), AS WELL AS TECHNICAL MANAGER OF PLANTOVITA / POTATO LABORATORY SERVICES (PLS)

CONTAINS THE FOLLOWING:

1. APPROVAL OF NEW AND CURRENT TESTING FACILITY

If a private laboratory wishes to perform tests via any of the acknowledged testing methods for the detection of the relevant pathogens for certification, it is the task of the CEO of the control laboratory (Plantovita) to approve the facility on the following merits:

- The minimum requirements to which such a testing facility should comply.
- Basis equipment needed.
- The implementation and execution of the standardised methods as described in the approved PLS testing protocol.

2. AUDIT OF THE TESTING LABORATORIES

The audit is based on the current protocol standards and is performed annually by the Technically Manager (TM) of Plantovita.

During the audit, the capability of a laboratory to function according to protocol standards within a framework of good laboratory practise, is investigated. To receive a positive audit result, it is compulsory for a laboratory to be capable of performing specific tests.

The CEO and TB of PLS have the right to request the ICCPS to withhold approval if one or a combination of the following results are found, depending on the weight the risk places on sample–integrity and test results:

- If chemicals are stored unorderly and incorrectly to such an extent that the correct application thereof presents a risk.
- If glass and plasticware used are dirty to the extent that the risk of contamination increases, or the chemical composition of the contents may be affected.
- If general housekeeping puts the whole process at such a risk that it can influence the test results – dirty work areas, cupboards, incubators, floors as well as shoddiness.
- If apparatus and equipment are used incorrectly – no calibaration, or no scheduled services.
- The purposeful, inaccurate excecution of a step / steps in the testing process.
- Wrong application of chemicals to such an extent that the test result is put at risk.
- When no attempt is made to control and monitor environmental conditions. thereby increasing the risk of faulty test results.
- When integrity of samples is put at risk during storage and handling, increasing the risk of faulty test results.
- Inaccurate execution of the testing procedure as recommended in the protocol.

3. AUDIT RECOMMENDATIONS TO MANAGERS / DIRECTORS OF COMPANIES

If it is find during an audit that the facility or the apparatus do not comply with requirements, the CEO and Technical Manager (TM) of PLS have the right to request the manager to repair or replace the facility / apparatus within a fair time.

Fair time for service, repairs or replacement is determined by the CEO or TM of PLS, depending on the severity of the damage and its effect on correct protocol standards and the influence on test results.

If the manager of the laboratory does not react on the request or indicate possible obstacles to repair the fault or replace the equipment, the CEO or TM of PLS has the right to recommend to the Technical Committee to cancel the ICCPS approval of the company up to the time when the necessary repair or replacement takes place.

After a follow-up visit to the laboratory to ensure the implementation of the recommendation, a request for approval will be put to the ICCPS via the Technical Committee.

KZN LABORATORY SERVICES: 2016

Helen Anderson (Laboratory Manager)

KZN Laboratory Servicess Staff: 2016

KZN Laboratory Servicess Staff: 2016

4. TRAINING OF STAFF IN PLS

Training is done at the control laboratory of Plantovita in Zeekoegat, Pretoria and is compulsory before a technologist is allowed to test independently and without supervision in an ICCPS-approved laboratory. Training is done in all aspects of laboratory activities connected to the excecution of this protocol.

The training officer does a follow-up visit to do an inservice – evaluation of the performance and where necessary, training.

If recommended by the CEO or TM of the control laboratory, technologists can be called up for training if:

- Changes are made to the testing protocol.
- It is found that a newly-appointed technologist needs support and further training.
- It is found that certain practises exist that may put the test result at risk.

If it is found that the trainee, in spite of support and training, still cannot excecute the test independently and correctly, the CEO and TM have the authority to bring it to the manager of the relevant laboratory's attention.

5. RECCOMENDATIONS OF RETESTS

If a mistake in testing is suspected, the CEO or TM of PLS can request a retest from the technologist of the regional laboratory.

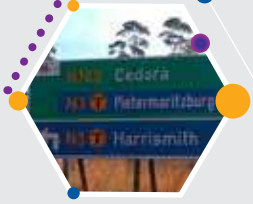
6. THE CEO AND TM OF PLANTOVITA CAN STOP TESTING IF THE FOLLOWING IS FOUND

- Regular mistakes and the unability to find the problem, such as Bacterial Wilt positive controls that never make the cut–off value, compared to regions that are testing at the same time which do not experience the same problem.
- During the annual compentency tests, continous deviation from the group standard that cannot be logistically explained.
- Legal complaints from certification officers of growers - actions that may put the integrity of the samples and test results at risk such as samples handled incorrectly with the chance of a mix – up with other samples.
- Risks that undermine the integrity of the Scheme – for example testing samples not complying with the code of conduct.

7. HEALTH AND SAFETY IN THE LABORATORY

The application of the laws is the responsibility of the regional laboratory. If the CEO or TM of PLS of the control laboratory notices any grave infringement of these laws, they can bring it to the attention of that company's management and make recommendations.

KZN Laboratory Servicess Staff: 2016



WESGROW LABORATORY SERVICES: 2016

Cecilia Nel
Laboratory Manager

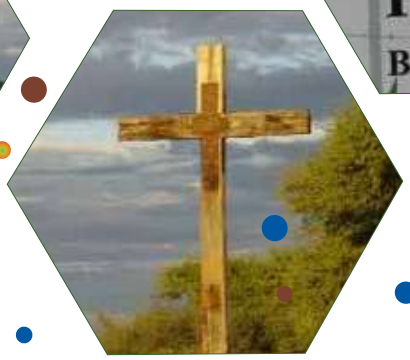
- The ICCPS approved PCR as an alternative test for the detection of viruses in certification, with the provision the process be evaluated and approved by the Department.
- The management of PLS and PSC are requested to investigate alternative and faster communication of non–official test results to the grower.
- To strengthen the independence of the control laboratory, the CEO of Plantovita / PLS was requested to resign as Manager of Finances and Administration of the regional laboratories.
- During this time, PSA indicated that they do not have the capacity to provide financial services to the laboratory companies.

2015

- All companies in the PLS group enjoy total independence regarding financial and administrative management.
- Plantovita remains the control laboratory of the PLS group and is responsible for the technical well-being, maintaining of standards and quality control between the laboratories.
- The Plantovita Board of Directors stresses the necessity of all regions to contribute financially to the technical support of Plantovita to the other laboratories in the PLS group.
- The PCR protocol and facility were intensely evaluated and investigated by Prof Johan Burger from the US on behalf of the Department.
- Plantovita highly succeeds and special mention is made of the technical capabilities and knowledge of the Technical Manager, Anel Espach.

NORTHERN CAPE LABORATORY SERVICES: 2016

Marizelle Bothma
(Laboratory Manager)



PLS moved to an international level of service when PCR received the green light as alternative testing method for certification purposes. Molecular testing of seed potatoes was at the disposal of the seed potato growers, with effect from 11 May 2015. Challenges in terms of financing, the acceptance of the industry and the availability of facilities were experienced.

Without the financial and moral support of the industry, we would hardly have been capable of progressing to this level. For this reason, we wish to once again thank everyone who contributed in whatever way to the establishment and financing of the PCR project.

After obtaining the ICCSP approval (November 2014) of PCR as alternative testing method for the tracing of PVR and PLRV for certification purposes, the final approval was subject to an independent investigation by an expert on molecular tests. The Department of Agriculture, Forestry and Fisheries requires that the application of new methodology for commercial purposes first be investigated independently, before being approved by the Department. This condition is applicable to any laboratory registered in terms of the Plant Improvement Act, 1976 (Section53 of 1976).

Professor Johan Burger of the University of Stellenbosch visited the Plantovita laboratory on 23 and 24 March 2015 and investigated the facility and procedures (protocol).

Professor Burger refers to the following in his report under Inspection of Infrastructure and Equipment:

"Plantovita possesses modern analytical laboratories that conform to all requirements for the routine PCR detection of the pathogens in question.....I was particularly impressed with the impeccable cleanliness and tidiness of these laboratories"

Under the heading ‘Staff’, Professor Burger refers to the following:

“The test procedure steps were executed by one analyst (Ms Anel Espach, MSc (Agric) Microbiology) and three technical assistants who are permanent employees, and who received in-house training to do the sample handling on a routine basis. The technical assistants seemed familiar with the procedures and the sample preparation steps were executed effectively and accurately. The analyst was in control of the entire procedure. She is a meticulous scientist with obvious extensive experience in plant disease diagnosticsShe not only executes the entire test procedure in a very routinely and reproducible manner, but with a clear understanding of the science behind the technologies – to an extent that she can optimise and improve protocols to make these more efficient and economical, and to effectively troubleshoot if problems arise.”

With reference to the above report, Ms J Sadie, the Registrar of Plant Improvement, indicates in writing to Plantovita on 28 April 2015 her support for the approval of PCR as an alternative testing method for the existence viruses.

Seed growers of potatoes were informed in writing of the availability of PCR as alternative testing method to Elisa for the certification of seed potatoes.

In a survey, regions indicated no interest in the re–structuring of a PLS financial pool. All regions indicated their preference to financial and administrative independence.

Due to the chance that tubers must be warmed up before the Bacterial Wilt test, the decision was made to provide the capacity at Plantovita. This went together with requirements for expansion in other departments at the control laboratory over time.

The investigation of PCR was extended to the application thereof in the confirmation of Bacterial Wilt.

The Niel Theron floating trophy went to an individual for the first time since 2008 - Anel Espach for her excellent contributions to technical growth in PLS.

A system which allows growers to receive non–official results electronically, reached the level of test trials, but was not yet ready for implementation.

The control laboratory of the Industry successfully reached a BEE level of 3.

Dear Anel,

I hope you are doing fine! In three weeks, we will meet and I can then show you the results in detail!

Just a small summary:

We finished testing the PLRV samples from South Africa.

In a first test series, we tested sprouted tuber samples in parallel by ELISA, qPCR (TaqMan) and PCR macro-array. We had 100% overlap with the three methods.

The detection limits of Australian / Peruvian / European and Swiss variant groups do not differ. The detection limits are very similar in the comparison between ELISA and qPCR. Our experiments show that the ELISA test and the qPCR equally well recognise the ZA PLRVs and the European PLRVs.

I would appreciate it very much if we could discuss the results together and discuss what can be done in the future.

Denise and the BIOREBA Team.

2016

M Botha and A Espach attended EAPR 2016 (PVY Virus Workgroup) in Ljubljana, Slovenia during May.

A Espach was invited to EAPR 2012 (Plant pathology) in Dundee, Scotland in August.

There are rumours that an exclusive strain, undetectable by the Bioreba Elisa virus kit, exists in South Africa. Prof Belsted took SA isolates to Bioreba. Bioreba tested these isolates with Elisa and PCR.

It is important to note that the virus kit does not miss any of the isolates.

Since 1997/1998, the control laboratory compares international available test kits regularly based on compatibility, specificity and sensitivity. To date no reason could be found to use an alternative test kit for the Elisa detection of PVY and PLRV.

The current Plantovita Board of Directors exist of the following members:

J van den Heever	Independent Chairperson
J Mellet	Solani Labs
J van Greunen	Sandveld Laboratory Services
A Coetzee	Northern Cape Laboratory Services
G Posthumus	Wesgrow
JJ van de Velde	KwaZulu-Natal Laboratory Services
Chris Kleingeld	DPO group
Dr Fienie Niederwieser	Research Manager: ASA
Rudie Heinlein	Table Producer

The above is truly 21 years in a nutshell! I hope the reader is convinced that Potato Laboratory Services is not a stagnant business. All changes over the years were well debated and progression was necessary. We are still here because we provide a necessary and valuable service. We have grown over time to a level where we can compete with similar services anywhere in the world.

I hope that the founder members can honestly say: The vision we had were right and good. Laboratory Services became more than we ever hoped for.

PROKON

PRODUCT CONTROL FOR AGRICULTURE (PROKON)

REPORT OF THE CHAIRPERSON

RUDI HEINLEIN

The company needed to take a new way forward that will make us really competitive in the delivery of quality assurance in the inspection environment. It did happen and it was a major step taken by the establishment of a new four-year strategy. The 2015/2016 financial year was the third year of the implementation of the strategy and we have managed to reach 100% of all the milestones that we have set.

Not only did the company grow during the 2015/2016 year, Prokon also continued to go from strength to strength financially and our income has once again risen to approximately R9 000 800.

We have once again received an unqualified financial report from our external auditors. Mr. Stanley de Lange, Vice-Chairman of Prokon and also the Chairman of our Audit Committee, earns a special word of thanks for his dedicated adherence to Prokon's financial guidelines. The Audit Committee takes good care of the finances and I would like to thank them for keeping an eye on our finances so that Prokon could once again grow. Our statements are positive and we have again done better than what had been budgeted for.

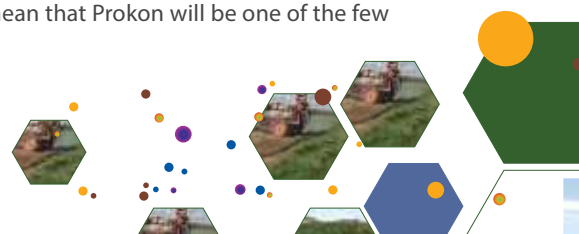
At the beginning of the season there were large volumes, especially small and baby potatoes on the markets. However, due to the drought there were low volumes, mostly of poor quality and with high prices on the markets in the second half of the year under review. The result was that quite a number of downgradings occurred. Greening, browning and mechanical damage were the main reasons for downgrading.

The year under review was also noted for the complete change in the quality control on fresh produce arena in South Africa. This is due to the reason that the Department of Agriculture, Forestry and Fisheries (DAFF) decided on the physical implementation of the regulations prescribed according the respective laws. DAFF has therefore initiated a tender process to appoint authorized service providers for the execution of this task. In November 2015 Prokon applied for the tender and on 17 May 2016, the Minister of DAFF granted Prokon with full authority as the service provider to perform quality assurance within the fresh produce industry in South Africa, as well as all fresh produce imported through ports, airports and border crossings.

This quality assurance should be done throughout the entire supply chain, from the warehouse, fresh produce markets and distribution centres to stores and supermarkets which totally changed the whole quality assurance field. This means that the structure and the vision of Prokon must change to provide this service.

What does the future hold?

Prokon went through the whole accreditation process of the South African National Accreditation System (SANAS) to be accredited as a Class A inspection service provider, in other words, a completely independent inspection service. The next step is that SANAS has to start with audits on Prokon which will align our inspection system with international standards. The accreditation, which is applied internationally, will mean that Prokon will be one of the few



private companies accredited in South Africa to conduct inspections on local and imported fresh produce.

International trends that may have an influence in the long term on the needs of the South African consumer must be considered. Over the past year and a half a remarkable international trend emerged that has its roots in France, through sales of "not pretty, but perfect fresh produce" at very affordable prices became popular worldwide. Through innovative marketing, it is proof that products that do not look pretty at face value, is perfect for use after inspection.

Another important trend that has recently come to the fore, is the link between agriculture, technology and capital investment. To illustrate, there was $ 2.3 billion invested internationally in agricultural technology in 2014, which has since doubled to $ 4.6 billion.

In Japan, for example, a marketing campaign called "talking to vegetables" in wholesale shops, the producer "speaks" to the consumer when the consumer takes a fresh product in hand. It is directly associated with transparency where the producer provides more information to the consumer on how the product was grown, which generates more confidence among consumers. This trend does not only provide fun in the shops, but also serves as a teaching methodology that involves delivering a fresh product to the consumer. According to the PMA sales at some stores rose by as much as 250% due to this trend. It is a clear example that consumers are increasingly interested in learning more about how their food is produced and how its quality is assured.

Now that Prokon will radically expand, there is a sharper focus on the training of our staff to ensure the highest quality insurance service. Prokon is not alone in this task. Liaison with other industry role players and the transfer of knowledge is of utmost importance. "E-training" courses offered on the Prokon website, provided input in the training courses of Black small-scale producers on Joburg market and packhouse training was provided to Black farmers who are involved in PSA's business development programme. Cardinal in these training opportunities is the creation of insight into the role of Prokon in the field of quality assurance.

During 2014/2015, 42 185 consignments were received and 99 689 833 bags were inspected. In the 2015/2016 reporting year, 39 942 consignments were received and the number of bags inspected amounted to 94 078 201. Despite the effects of the drought potatoes of high quality were delivered during 2015/2016. Underweight bags remains a concern and Prokon is confident that PSA's project to assist producers with the calibration of their scales will address this problem.

Trade inspections have increased from more than 3 000 during the 2014/2015 year under review to 2 810 in 2015/2016, which indisputably indicates the expansion of Prokon's reach in the quality assurance area.

You as potato producers are welcome to visit the fresh produce markets to see how your product compares with other products on the market floor. What you send from your packhouse and what is offered for sale on the market, is not necessarily of the same quality. In conjunction with our other partners who assist us in the potato industry we will gladly support you to ensure that your practices are adjusted for optimal prices on the market. You can also visit the Prokon website (www.prokonsa.co.za) during your marketing season for valuable information on aspects that can assist in ensuring the quality of products.

My appreciation goes again to the Board of Prokon who bought in on broadening our horizons. Thank you for the courage and confidence to reposition Prokon during 2015/2016 as one of the top quality assurance bodies in the country!

Last, but not least, it is a privilege for me to confirm that Prokon has the best qualified quality assurance personnel as part of a nationwide team. In a phase of growth and new challenges, I would like to thank the staff for their loyalty, dedication and willingness to tackle more than one challenge simultaneously. I have full confidence in the staff of Prokon in that by the next reporting year we will be able to deliver an industry report that will confirm that good supporting relationships in the potato industry will be a reflection on the advantage of partnerships and appreciative consumers.

Rudi Heinlein

Chairperson

REPORT OF THE
CHIEF EXECUTIVE OFFICER

ETIENNE BOOYENS

PROKON, the fresh produce industry's partner in quality assurance, is expanding its activities as well as offering its expertise to all role players in the fresh produce industry. The reliable quality assurance and its benefits offered by Prokon to every category of fresh produce and those associated with it, from farmer to consumer, are indispensable. Fresh produce industries investing in the establishment of sound quality assurance systems with Prokon's assistance, should experience real benefits from more efficient price forming mechanisms and improvements in their product standards and quality.

The 2015/2016 year will be remembered as a period in which the pace of change accelerated remarkably within Prokon. In the previous year the board and administration already changed to a higher gear in order to keep pace with the business strategy. Now that we are in the third phase of the business strategy, change can be observed almost on a daily basis. The increase in the intensity of change is due to the larger playing field with the extension of assigneeship by DAFF. The application of quality assurance regulations applicable to all levels of the fresh produce industry, forced Prokon to expand its services to other role players in the South African fresh produce industry.

Prokon extension of assigneeship by DAFF is definitely one of the highlights of the 2015/2016 financial year. This involves that Prokon is now in the early stages of changing its entire structure in order to provide the service of inspection and quality control on all fresh produce in South Africa. Prokon will be responsible for inspections on all fruit and vegetables across the country as well as on all imported fruit and vegetables.

The implication for the future is that many people are going to be appointed, mostly at the inspection level. These inspectors are both qualified with years of experience and unqualified inspectors who have a minimum academic qualification such as an agricultural diploma, but who have not gained any inspection experience yet. These unqualified inspectors will receive in-house training which means that an in-house training programme must be put in place very soon.

In 2015/2016, 39 942 potato consignments (94 078 201 bags) received on the fresh produce markets were inspected. In addition, 1 149 trade inspections were conducted at distribution centres and 1 522 at stores which are provided with potatoes by the distribution centres.

Prokon again delivered commercial services to the following organizations during the 2015/2016 financial year:

- Quality inspections on peaches, nectarines, plums, prunes and apricots on behalf of the South African Stone Fruit Organization.
- Quality inspections on mangoes for Subtrop.
- Ripeness tests on avocados and a wastage study on behalf of the South African Avocado Growers Association.

- Quality inspections on locally-produced and imported garlic on behalf of the Garlic Association.
- Quality assurance and health services to certain markets in South Africa.
- Presentation of "e-training" courses in quality-related fields through the Prokon website.
- Services provided to PSA
  - Providing information such as the volumes of potatoes delivered to fresh produce markets in each region, including the various classes of potatoes, cultivars, and downgraded volumes.
  - Packhouse training.
  - Paper and packaging tests.
- A new service that was added, is the establishment of quality assurance and health services to the Agricultural Marketing and Trade Agency (AMTA), the agency under the Ministry of Agriculture, Water and Forestry, which is responsible for the management of fresh produce business in Namibia. The service provision involves training staff in Namibia in quality assurance and inspection within the wholesale and on the markets. This is regarded as a long-term partnership.
- There were also quotes submitted for similar training of staff in other Southern African countries.

Revenues for the year under review amounted to R9 781 238 which is an increase of about 6% against the income of the previous year. In view of the expansion of Prokon's services and the company's preparation to gear itself for the extension of its mandate and as assignee to DAFF .

Apart from the official inspection fee potato growers pay to Prokon, additional funds are increasingly generated by commercial services to other organizations in the potato industry. Prokon does have reserves which will allow the company to acquire bank loans to implement the new structural expansions.

Prokon has once again received an unqualified audit report from Fourie & Botha, our external auditors following the audit of our financial records for 2015/2016.

Prokon currently has 56 staff members in its service including 25 quality controllers who provide inspection services on the national fresh produce markets, and 26 assistants who assist the inspectors in carrying out their duties. This means that less than 8% of the staff provides the necessary administrative support services, which in my opinion is a very healthy ratio.

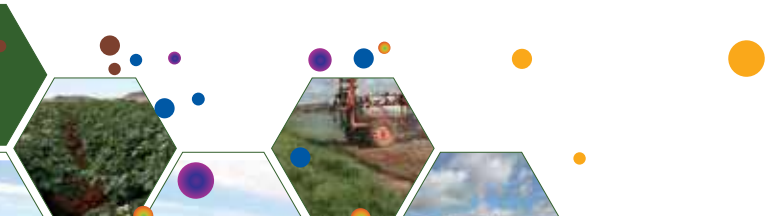
As a result of the Board decision to adjust the remuneration of quality controllers to a market related level, we once more experienced very little personnel changes. In light of the amount of time and money spent on training quality controllers, this is a big plus for Prokon, especially with the expansion of responsibilities taken into account.

However, in order to expand service delivery, it is essential that Prokon is properly equipped for the task. SANAS accreditation is therefore of the utmost importance.
The growing footprint of Prokon is to the benefit of the consumer who's insistence on quality also leads to the benefit to producers and trade industries.

The 2015/2016 year was a challenging yet prosperous year for Prokon during which the board and staff gave new meaning to the concept of teamwork. Thank you for your dedication and hard work. Then I would like to thank our chairperson, Mr Rudi Heinlein and Mr Stanley de Lange, Chairperson of the Audit Committee for taking the lead in this new phase of development in Prokon.

Etienne Booyens

Chief Executive Officer



BUSINESS REPORT

Product Control for Agriculture (Prokon) in non-profit company under the Companies Act, No. 71 of 2008 that renders an inclusive quality assurance, product management and grading service to the South African fresh produce industry.

The services the company render can be categorised as follows:

- Assignee of the Department of Agriculture, Forestry and Fisheries in respect of potatoes.
- Commercial services rendered to PSA.
- Commercial services to other institutions in the fresh produce industry, for example in respect of stone fruit, avocados, the mangoes, garlic and citrus.
- Knowledge transfer.

THE PERSONNEL

In order to render the above services Prokon has 56 personnel members in its employ, of which of 25 quality controllers who rendered inspection services on the 17 national fresh produce markets, and 26 assistants who assist the aforementioned in the execution of their duties.

Service delivery as assignee of the Department of Agriculture, Forestry and Fisheries in respect of potatoes

Service delivery to the potato industry

In 1993 Prokon was officially appointed by the Department of Agriculture. Forestry and Fisheries as assignee to enforce the regulations applicable to the grading, packing, and marking of potatoes destined for sale in South Africa, and to report to the various role players. The regulations were promulgated under the Agricultural Products Standards Act, No. 119 of 1990.

In terms of the appointment Prokon renders a comprehensive inspection service on potatoes which means that the quality and standards of the marketable product are controlled in accordance with the directives of the regulations. This ensures that value is added to the benefit of the producers as well as ensures that consumers are assured of a quality product.

The inspection service is backed by a data base that is continuously maintained with the latest information which is confidentially made available to producers on a daily basis. The information is also made available to PSA in a processed format that allows the organisation to identify and address problems in good time.

During the year under review Prokon has rendered the following services to producers who delivered potatoes to the fresh produce markets:

- Personal contact with the producers to ensure that consignments comply with the prescribed regulations. This was done by providing continuous information on the quality of the produce as well as on matters pertaining to the packing, marking and mass requirements.
- Making statistics available on:
  - Class
  - Size groups
  - Mass of packaging

COMPANY STRUCTURE

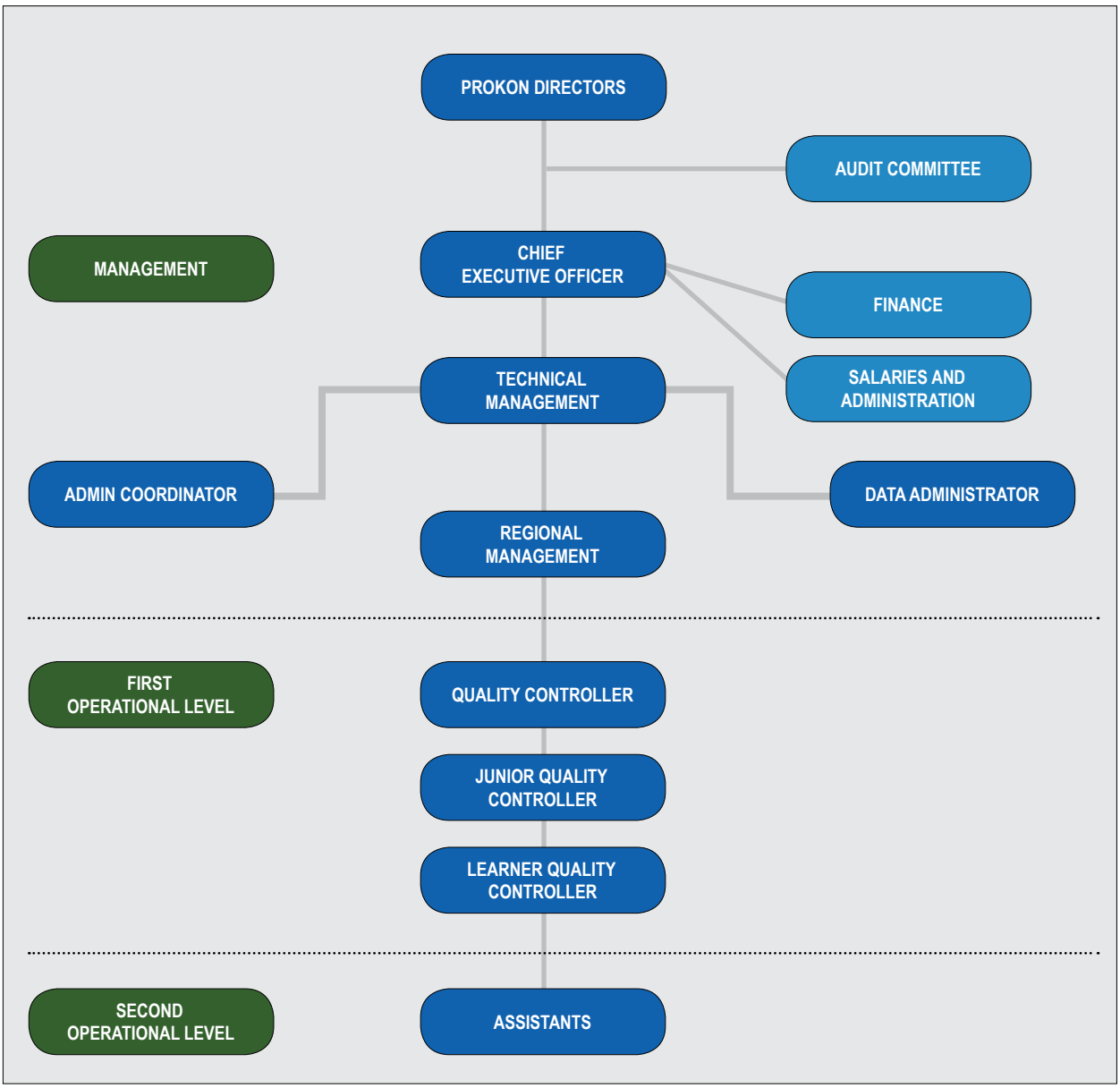


Figure 1: Company structure

The above services allows the producers to better manage the marketing of his potato crop and also ensures that his trade mark represents quality that contributes to increased demand for his product and which inevitably holds financial benefits. Herewith cognisance should be taken of the fact that quality and stock levels are the primary price determiners on the fresh produce markets which makes the service rendered by Prokon that much more important. In addition the service ensures that the buyer and the consumer are assured a product that complies with the prescribed requirements.

Potato inspections on markets

During the year under review Prokon inspected 39 942 potato consignments (94 078 201 bags) on the fresh produce markets received from 16 different production regions.

All regions in terms of 10 kg consignments delivered were:

Sandveld	8 671 838
Ceres	382 260
Southwestern Cape	80 748
Northern Cape	2 490 360
Eastern Cape	2 848 572
Southern Cape	56 370
Northeastern Cape	1 788 598
Western Free State	17 401 379
Eastern Free State	13 922 128
Southwestern Free State	4 418 965
KwaZulu-Natal	3 635 210
Mpumalanga	3 473 979
Limpopo	25 191 113
North West	3 991 619
Gauteng	2 106 048
Loskop Valley	99 830

The majority of consignments received and inspected were of the highest quality. Only 6.36% of consignments were down marked to a lower class. Unfortunately under mass consignments were a significant problem.

REASONS FOR DOWNGRADING DURING 2015/16 COMPARED TO 2014/15

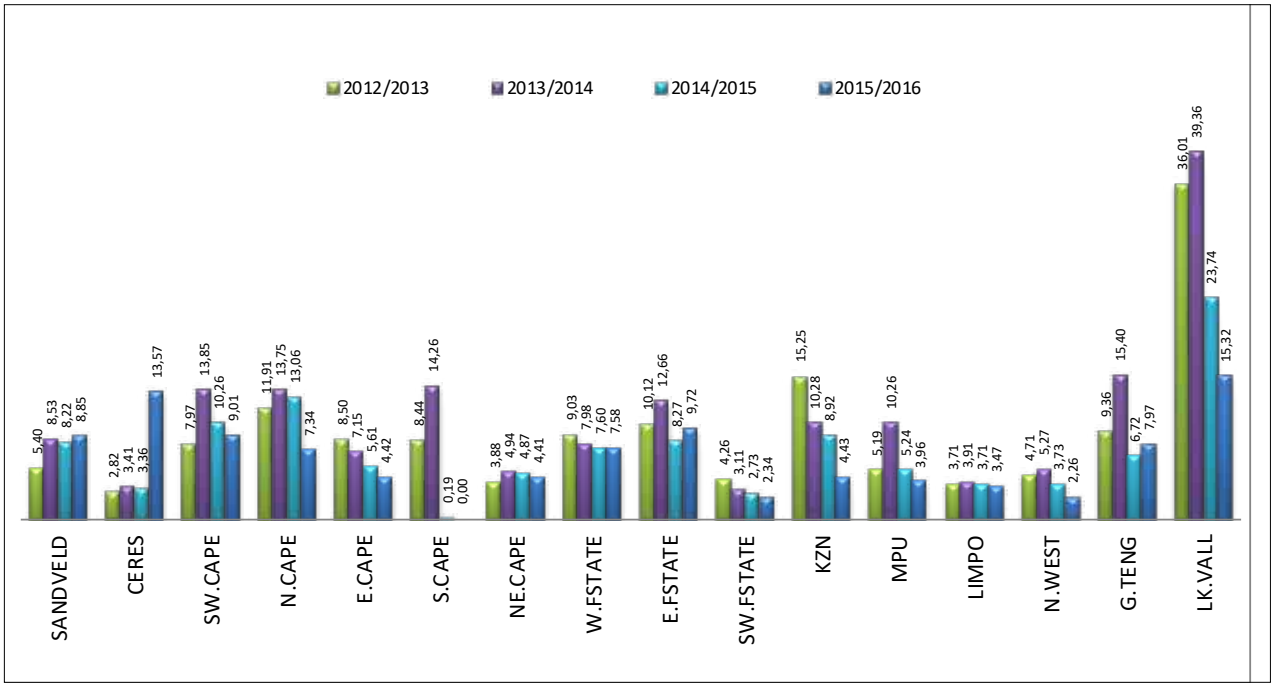


Figure 2: Percentage potatoes downgraded per region for 2012/2013, 2013/2014, 2014/2015 and 2015/2016

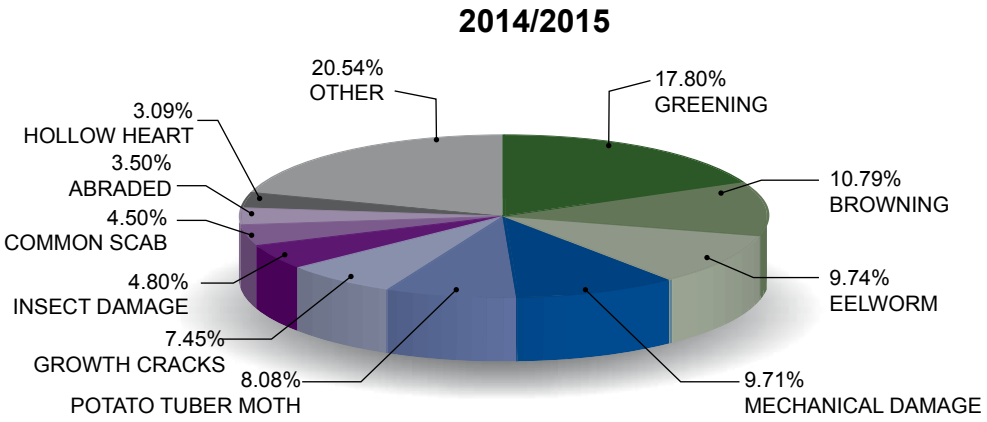


Figure 3: Comparative reasons for downgrading on all markets and all regions 2014/2015

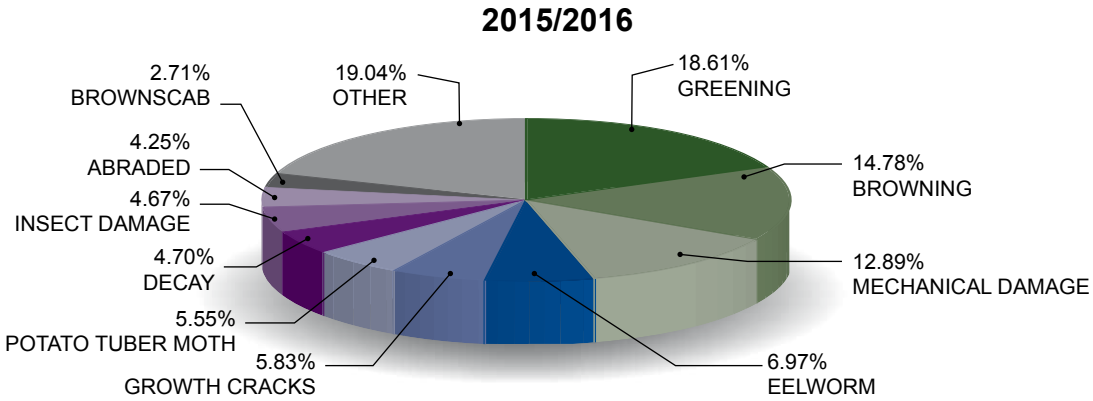


Figure 4: Comparative reasons for downgrading on all markets and all regions 2015/2016

Table 1: Reasons for downgrading per region

	COMMON SCAB	MECHANICAL DAMAGE	GREENING	BROWNING	EELWORM	GROWTH CRACKS	SILVER SCAB	WATERGRASS	INSECT DAMAGE	ABRADED	POTATO TUBER MOTH	DECAY	HOLL HEART	TOO SMALL	BROWN FLECK	OTHER *	TOTAL DOWN MARKINGS
Sandveld		7,37	7,69	54,17												30,77	8,85
Ceres				28,58		16,55								19,49		35,38	13,57
South Western Cape				19,49						28,86		22,82				28,83	9,01
Northern Cape			14,60		27,91		9,56									47,93	7,34
Eastern Cape			36,26				13,24					10,39				40,11	4,42
Southern Cape																100	0,00
North Eastern Cape		17,21	16,50									22,49				43,80	4,41
Western Free State		11,22	39,48			10,69										38,61	7,58
Eastern Free State		20,25							11,76		11,23					56,76	9,72
South Western Free State		11,93								10,64		19,08				58,35	2,34
KwaZulu-Natal			11,54						15,07		11,24					62,15	4,43
Mpumalanga		11,15			19,06	10,00										59,79	3,69
Limpopo		9,74	34,09			11,53										44,64	3,47
North West		11,91	22,75												9,27	56,07	2,26
Gauteng		15,55	16,94	12,94												54,57	7,79
Loskopvaley		25,89		39,63								15,82				18,66	15,32

DISTRIBUTION CENTRES AND RETAIL VISITS – 2015/16 IN COMPARISON WITH 2014/15

Potato trade inspections

During the year under review 1128 trade inspections on potatoes were conducted at distribution centres and 2043 at retail outlets in accordance with the decision taken by the Department of Agriculture, Forestry and Fisheries in 2013 to extend the inspection service. The inspections entail three monthly visits to every distribution centre and five outlets supplied by each of the distribution centres.

The department took the decision to ensure that as many fresh produce points of sale in the supply chain as possible comply with the prescribed marking and quality requirements in order to guarantee that the consumer continuously receives quality potatoes.

To ensure the success of the inspection service directives were issued in cases where distribution centres and retail shops did not comply with the quality and marking requirements. Such directives were followed-up with visits to ensure that the problems were rectified. The non-compliance with the marking requirements is the biggest problem and is ascribed to the ignorance of shop management as far as what information should be reflected on the bags after repacking. Regular reports have been submitted to the distribution centres to ensure that they are firstly aware of the situation and secondly are in a position to take corrective action.

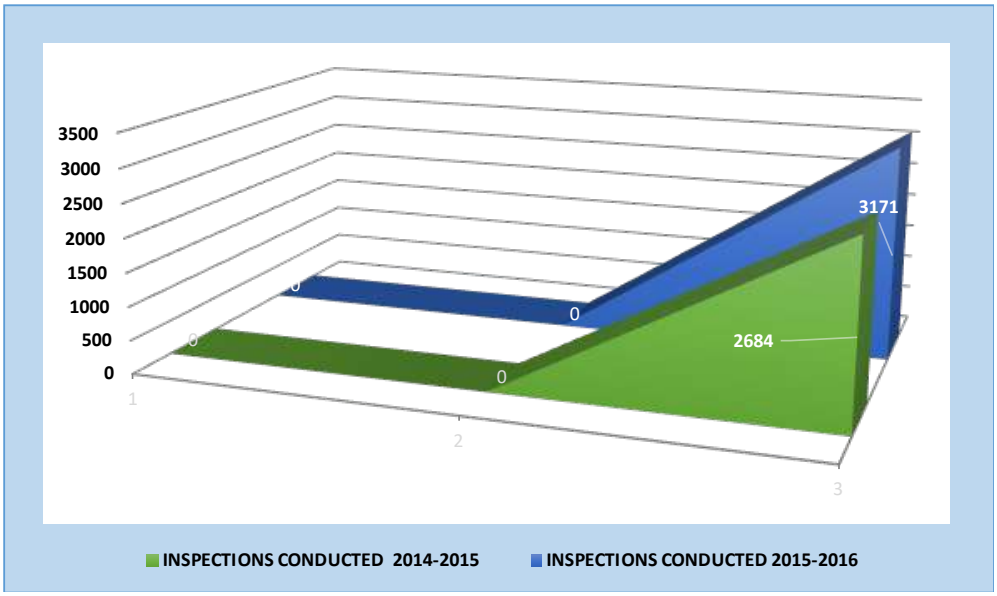


Figure 5: Distribution centres and retail visits - 2015/16 as opposed to 2014/15

COMMERCIAL SERVICES RENDERED TO PSA

Provision of information

The information downloaded onto Prokon's data base, has been provided to PSA's Department: Industry Services on a regular basis which is required by the latter to render its trade related duties. The information includes the potato volumes delivered per region to the fresh produce markets, inclusive of the different classes of potatoes, cultivars, the volumes down-marked and the reasons therefore, as well as disease occurrence.

As part of the service monthly reports on the volumes delivered by a specific region, together with the reasons for down-marking, and the percentages of potato consignments down-marked, were sent to the regional personnel of PSA. This information allows them to discuss the problem that are unique to a specific region, with the producers and to recommend corrective action.

Paper and packaging tests

As a result of complaints received from potato producers regarding the inferior quality of potato bags provided by some bag manufacturers, Prokon was contracted by PSA to conduct paper and packaging tests.

The outcome of the test resulted in the compilation of guideline specifications for paper used for the manufacturing of potato bags. The majority of paper suppliers and bag manufacturers have also sign a

code of conduct according to which they will abide by the guideline specifications. A logo has also been design for inclusion on those bags that comply with the specifications.

Prokon has also been contracted to handle all bag breakage related complaints.

COMMERCIAL SERVICE DELIVERY TO OTHER INSTITUTIONS IN THE FRESH PRODUCE INDUSTRY

Fresh produce markets

Quality assurance on markets

Prokon provided a quality assurance service to the Kimberley, Klerksdorp and Vereeniging Markets. The service entailed quality assurance on all fresh produce and the application of marking requirements as prescribed by the relevant regulations. Attention was also afforded to general hygiene on the market floor. The market authorities were given daily reports together with recommendations on rectifying the problems.

Health services on markets

Prokon also provided an independent health service to Kimberley, Klerksdorp and Cape Town markets. The service entailed the inspection and writing-off of products which quality has deteriorated to such an extent that it is no longer suitable for human consumption. Removal of rotten products helps to give the image of the market a boost, as well as agents, reducing cross contamination and other products

Prokon Cape Town Market assisted in the writing off of 206 102 units for the period August 2015 to the end of July 2016.

KNOWLEDGE TRANSFER

An Information day was organized by the Department of Agriculture, Forest and Fisheries, as well as the rural development in Limpopo region at Maiwashe estate near Soekmekaar on 7 June 2016.

Prokon was invited to give a presentation and give out literature, pamphlets as well as information regarding the regulations of potatoes to the emerging and existing farmers that who attended the information session.

Apart from the 32 emerging and existing farmers who attended the information day, there were also representatives involved who are directly and indirectly involved in the farmers namely Land Bank, McCains, Molemole Municipality DAFF, Tshwane Market, Town Green, Omnia, Elimak Farming and Freshway Market agents.





IMAGE BUILDING AND MARKETING OF SERVICES

To promote its image as a primary service provider in the fields of quality control, Prokon made use of various mediums. Examples thereof include:

- **Liaison with role players in the fresh produce industry**

  Prokon places a high premium on liaison to extend its client base. Consequently numerous meeting were held with role players in the fresh produce industry to market the specialist services Prokon has to offer. This includes meetings with existing and potential clients as well as with government institutions.

- **Potato data base**

  Next to the inspection service, the potato data base is Prokon's biggest asset and therefore an important marketing tool. The information loaded onto the database offers the user an excellent aid which is of cardinal importance in the production, harvesting and marketing of potatoes.

  Information on the following was most in demand:

  - Number of deliveries delivered per market.
  - Number of bags per size group and class delivered per market.
  - Volumes delivered per region and nationally to all markets.
  - Cultivars and volumes delivered per region and nationally to individual markets.

  Additional information that is available includes diseases and defects, statistics on downgrading and the relevant reasons.

  The tracing of diseases and pests during inspections cannot be emphasised enough. This information were made available to potato researchers and the industry with a view to, inter alia, implement preventative control measures. The value lies especially in the fact that the origin of the disease or pest can be traced backed to farm level.

- **Articles in Chips**

  Articles on potato deliveries per production region to the fresh produce markets were published in every edition of the industry magazine CHIPS. During the year under review several articles that relate to the activities of Prokon were also published with the emphasis on the value it holds for the reader. These articles are also available on the Prokon website.

- **Prokon website**

  As is the case with all companies, Prokon duly accepts that electronic liaison is imperative to promoting its image and to convey information. As a result Prokon continuously busy revamping its website www.potatoes.co.za to increase its user value and to make it more user friendly.