

# Tuber or not tuber? That is the question

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**G**rowing up in a house where your father has Irish roots and potatoes are regarded as staple food, you would understand the constant dissatisfaction at the dinner table over 'glassy' potatoes.

Until recently it was understood that certain potato varieties could be marketed for specific purposes – one would therefore buy potatoes specifically for mash, others for deep-frying and so on. However, it has become apparent that different environmental conditions could impact certain harvests to the extent that the same potato variety may be suitable for deep-frying, mashing and baking.

The current South African potato classification system groups cultivars or varieties which does have value. However, agricultural diversity complicates such a system and consumer education is essential in guiding consumers to consider varying factors when purchasing potatoes fit for purpose.

## Potatoes as a commodity

Potatoes play a pivotal role in bolstering economic and agricultural progress in South Africa. The primary industry is valued at R11 billion while the secondary sector is valued at R25 billion. This makes the sector a positive and powerful contributor to the country's gross domestic product and a linchpin for food and nutrition security.

This food commodity is becoming a role-player in food security in many developing countries buoyed by rising global consumption trends that are boosted by improved processing and storage technologies. Growing global consumption is primarily attributed to evolving consumer preferences,

lifestyle shifts, and the continuous growth of the global population. The growth and popularity of this highly diverse crop necessitates continuous novel and innovative research to support the enduring presence of our beloved spuds on our plates.

## Agriculture and consumers

Over the years, the long-time partnership between the University of Pretoria (UP) and Potatoes SA has consistently yielded exceptional, high-quality research that is mutually beneficial. With an increased focus on the link between agriculture and consumers, a recent study conducted by the UP Department of Consumer and Food Sciences is highly relevant to potato producers and consumers.

It delves into the juicy flesh of potatoes seeking to understand whether we can cost-effectively and quickly classify potatoes from the farm according to their fit-for-purpose goal. Numerous factors alter the delicate textural, internal nuances of potatoes to lead to chips being crispy and mash being smooth and creamy. Hence, the creation of a rapid classification method that can classify potatoes at farm level is a very exciting prospect for the agricultural industry.

This type of classification allows consumers and producers to buy potatoes that are fit for purpose and that deliver the desired results, depending on seasonal and agricultural practices. While the existing cultivar-based classification system holds merit, the complexity of agricultural diversity poses a challenge to this approach with the same cultivar delivering varying results.

The value of this project goes even further, as it indirectly contributes to efforts to decrease food waste.

A potato that delivers the desired cooking results is inherently less likely to be discarded, thus aiding in waste reduction efforts.

## What South Africans want

As part of this interdepartmental, inter-industry collaboration, it was necessary to first establish what South Africans want when they select and use potatoes. From an initial analysis of 423 South African participants between the ages of 18 and 80, it was found that they have very little awareness of different cultivars. Only 31% were aware that different cultivars exist or that there are fit-for-purpose cultivars.

The survey indicated that 40% of South African consumers prefer to buy 'all-purpose' potatoes and 28% do not care about the textural classification. Contrary to buying behaviours in Europe, 71% of participants stated that they do not buy potatoes for a specific use or preparation method. These factors can contribute to consumer dissonance. Using a cultivar that is fit for purpose will deliver a better overall cooking and eating experience.

When purchasing potatoes, the consumer should consider the potato classification system and the type of cooking method that will be used. Waxy potatoes are ideal for boiling and in potato salads, as they keep their shape. Fluffy potatoes are great for mashing and frying and will deliver a smooth, fluffy end product.

Next time you are selecting a packet of potatoes, take time to look at the packaging detail and educate yourself on the best cultivar or textural class for your specific needs. In doing so, you will ensure that every potato dish is a delight, and nothing is wasted. 🍌

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# CHIPS

VOL 38 NO 2 • MARCH / APRIL 2024



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IN 2023**

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