Would you give up your steak to eat edible bugs...? The idea of consuming insects may sound disgusting, but there are over 2 billion people worldwide who eat insects as part of their regular diet.

In recent years, there has been an increasing interest among the scientific community in entomophagy, the practice of eating insects, as a potential solution to the inevitable global food security and sustainability issues facing humanity.

Professor Louw Hoffman, previous DST-NRF SARChI Chair in Meat Science, and colleagues at Stellenbosch University are among the scientists that have explored new developments in entomophagy, and its safety for human consumption.

**Insects not as juicy as meat but high in nutrition**
According to their research, many edible insects contain protein, fat, amino acids and minerals; components that are crucial to the human diet. Using the commercially available nutritional value score, insects are seen to have a nutritional value as good as or higher than that of both chicken and beef.

100g of dried insects could contribute between 24% and 148% of the daily recommended requirement of protein for the average human adult as well as supplement iron, zinc and calcium minerals.

When used as a food ingredient, the insect products compared well with commercial vegetarian products but rated poorly on texture and juiciness when compared with commercial meat products.

**Safety concerns**
Not all insects are edible; many are considered unpleasant and even toxic. Studies show that there are currently still many unknowns regarding the microorganisms and allergens associated with eating insects.

Microbiological and biochemical tests on fresh coconut beetle (Oryctes Monoceros) samples exposed the growth of foodborne pathogens such as Bacillus cereus, Escherichia Coli (E.coli) and Staphylococcus aureus amongst others. Even so, the study found that blanching the edible insects was effective in reducing levels of microorganisms to levels safe for human consumption.

The research advocates for using commonly known edible insect species such as meal worms, grasshoppers and of course, fly larvae, reared on pollutant-free feed in controlled farming environments to reduce the potential risk associated with eating insects.

**Conclusion**
The eating of insects may still be a controversial topic in Western culture, however, the study recommends that taste and preferences of consumers can be changed towards the eating of insects. Similar to sushi (raw fish) and lobster (a family similar to insects) which were previously considered unpalatable and now part of the Western culture diet, insects can be portrayed as a normal and everyday food.