

UNSW studies have shown that extrusion can manipulate the starch structure and prevent glucose release in the gut.



## More information

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# Reducing Glycemic response through rice and rice products

School of Chemical Engineering

## Technologies for improving the glycemic profile of rice and rice products

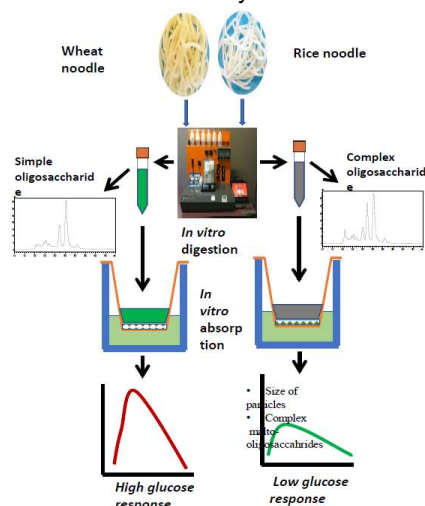
- It is a process to partially cook rice in its husk by soaking in water, steaming and drying. This allows changes in starch structure making it resistant to enzyme action in the human gut.
- Parboiling reduces the stickiness of rice, so it yields fluffy and separate kernels once cooked.
- Additionally, parboiling inactivates the enzymes that break down the fat in rice. This helps prevent rancidity and off-flavors, increasing shelf-life.

## Technology: Extrusion to make rice products

- Appropriate selection of rice varieties
- Using extrusion to manipulate the starch structure to manufacture products that can inhibit enzyme action.

## Effects

- Rice starch structure can be manipulated to release complex oligosaccharides
- Starch is made resistant to enzymes and the complex oligosaccharides released can be made resistant to enzymes action.



## Our experts

- Associate Professor Jayashree Arcot