

description

Potato granules come as a fine powder that is mixed with boiling water to yield a food similar in texture and taste to mashed potatoes. The production process involves peeling, cooking and drying potatoes, which are then reduced to granules of one or a few cells each. Some chemical additives are used to prolong shelf life.

uses

Potato granules are intended as a potato substitute. Fresh potatoes are too perishable for use in food aid situations. Given the ease of preparation and minimal energy inputs, potato granules may be preferable to wheat or rice as a source of carbohydrates (energy) in situations such as refugee camps where access to cooking facilities is limited. In areas where food is being prepared centrally, potato granules may be mixed with milk powder to provide additional protein and micronutrients, and to increase palatability.

limitations

Possible limitations of the product include:

- **cost:** As detailed in the section on cost, below, potato granules are significantly more expensive than other sources of carbohydrate.
- **acceptability:** As with any food selection, local tastes should be understood and respected as much as possible.
- **water-borne disease:** As with milk powder, reconstitution with contaminated, inadequately treated water increases the risk of water-borne disease (diarrhea etc).

nutritional information

Nutritional content per 100g

Source: USDA

commodity	energy (kcal)	protein (g)	fat (g)	density (MT/container)	energy per \$ (kcal, approx)
Potato Granules	372	8	0.5	20-25	3540
Potato Flakes	354	8	0.4	5-6	3930
Wheat	330	12	1.5	18-22	11,750
Wheat Flour	350	11	1.5	15-19	10,280

cost

Cost is one of the biggest drawbacks to the use of potato granules in food aid projects. April, 1999 prices for a metric tonne of granules range between \$1050 and \$1300, as compared with \$280 and \$354 for wheat grain and wheat flour respectively. As an energy transfer, wheat is over three times as efficient per dollar versus potato granules. Wheat also contains 5.6 times the protein per dollar value. Wheat flour is more expensive, due to the processing cost, but is still significantly more efficient than potato granules.

However these numbers are somewhat misleading as the wheat and wheat flour values represent pre- or mid-processing figures, whereas the potato granules are a processed, ready-to-eat product. The amount of nutrient lost in processing will vary depending on the method of processing and preparation. Extra energy costs borne by the recipients should be taken into account, especially in refugee situations where recipients may lack the facilities (mills, cooking pots, stoves etc.) to process and prepare the food.

An additional benefit of potato granules is their high density (see table above). Packing more commodity into each container means lower shipping costs.

shelf life

Potato granules are packed in poly-lined sacks. In appropriate conditions (cool and dry), the product will last for up to one year.

substitutes

Other sources of carbohydrate such as wheat, corn or rice (locally purchased) are roughly nutritionally equivalent. Commodity selection should consider cost, local tastes and ability to process and prepare the food.