

FSSAI includes beans, cauliflower & spinach in frozen veg regulations

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E-paper

FSSAI has included beans, peas, cauliflower and spinach in its regulations for frozen vegetables. The country's apex food regulator has issued a draft notice in this regard, and once adopted, food business operators (FBOs) trading in such frozen products will have to comply with the new standards prescribed by it for the same. According to the notice issued by the FSSAI, the new standards will be added under the clause of frozen vegetables of the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011. Earlier, all the frozen vegetables had common standards. The new draft will provide the FBOs and industry with specific standards for every category.

According to TechSci Research, the Indian frozen food market stood at \$310 million in 2017 and is projected to grow at a compound annual growth rate (CAGR) of over 16 per cent to reach \$754 million by 2023, backed by the rapidly-growing demand from middle class consumers with increasing disposable income.

Rising urbanisation, increasing number of refrigeration facilities in small retail shops and rural households, and a growing cold chain industry are expected to significantly contribute towards the growth of the frozen food market in the country over the coming years.



Frozen beans

As per the defined standards, frozen beans shall be prepared from fresh, clean, sound, succulent pods of the plants of the species *Phaseolus vulgaris* L or *Phaseolus coccineus* L. Beans may contain sugars (sucrose, invert sugar, dextrose, fructose, glucose syrup and dried glucose syrup), salt, spices and herbs.

Frozen cauliflower

Frozen cauliflower shall be prepared from fresh, clean, sound heads of the cauliflower plant of the species *Brassica oleracea* L var *botrytis* L. Being uniform white to dark cream colour, which may be slightly dull, they will have a tinge of green, yellow or pink over the flower surface.

Both frozen beans and frozen cauliflower of different styles will accordingly be labelled whole, cut, short cut, sliced or other and whole, split, florets or other (any style that is sufficiently distinctive from the other styles laid down in these standards).

Frozen peas

Frozen peas shall be prepared from fresh, clean, sound, whole, immature seeds of the peas plant of the species *Pisum sativum* L containing sugars (sucrose, invert sugar, dextrose, fructose, glucose syrup, dried glucose syrup), salt, spices and herbs. With a uniform green colour according to the type, it shall be free from any foreign taste or smell and shall have a normal flavour, taking into consideration any ingredients added.



Frozen spinach

Frozen spinach shall be prepared from sound edible parts of the spinach plant of the species *Spinacia oleracea* L. Frozen spinach shall be stored at -18°C or below. The product shall be of a reasonably uniform green colour, characteristic of the variety. Labelled as per styles such as whole, leaf spinach, cut leaf spinach, chopped and pureed spinach.

Earlier, the frozen vegetables was defined as the product frozen in blocks or individually quick frozen (IQF) and offered for direct consumption, if required. Commenting on the move, Rajan Mathews, an expert in frozen fruit and vegetable category said, “The draft notification of FSSAI norms on frozen vegetables is the first attempt to bring the frozen vegetables under the apex regulator’s norms. Till now, we had only regulations for fruits and vegetables, which were thermally processed and packed in water, brine or other forms of preservations.”

He added, “As of April 4, 2018, the FSSAI had published the final notification of the Food Safety and Standards (Food Products Standard and Food Additives) Fourth Amendment Regulations, 2018, relating to revised microbiological standards for fruits and vegetables and their products.”

Talking about the flaws, Mathews said, “The new standards issued by FSSAI on the frozen vegetables categories like beans, peas, cauliflower and spinach have a few flaws and do not address key issues. For instance, the standards are too liberal in terms of minor or major blemish due to insect or pathological damages. There should be zero tolerance to such blemishes.” “The FSSAI standards mention washed and sufficiently blanched to ensure adequate stability of colour and flavour. Blanching is not detailed as this is the key to maintaining the product and free from microbial organisms,” he added.

“Another flaw is that there is no mention of size grading for standardisation and for commercial aspects of pricing especially in peas. This can lead to mixing of different sizes in a pack. The standards do not take into cognizance the use of artificial or any external colours. They do not clearly mention the presence of hazardous materials such as stones, mud, soil, metal or glass pieces and the use of process or machines for the removal of these foreign materials,” said Mathews. “The most important process of frozen products is the process of freezing, and this has been left without any mention as frozen products should be blast-frozen. The products should be first frozen to -27 degree Centigrade and then should be maintained at -18 degree Centigrade,” he added.

“This process will ensure that there is no moisture inside the vegetables and will ensure that it remains fresh for the complete shelf period. In blast-frozen foods, the risk of food poisoning is reduced to a great extent,” Mathews said. “Usually, these food items are kept below -18 degree Celsius, which ensures that there are not many biological changes in the foods. The growth of the enzymes causing food poisoning is very slow in these foods,” he added. “Strict quality guidelines are required to be maintained by the manufacturers. The time period after harvesting of the vegetables is very critical as they are processed and frozen just a few hours after harvesting. The vitamins and minerals get locked and due to this and the texture and taste is also enhanced. Due to blast-freezing, the texture, taste and freshness of food items is maintained,” said Mathews.