

Punjab's wheat straw will add shine to apples, peaches of J&K, HP

Technology developed by Mohali institute to benefit growers of region

VIJAY C ROY
TRIBUNE NEWS SERVICE

CHANDIGARH, JULY 16
Despite knowing well that "An apple a day keeps the doctor away", one avoids the fruit as the market is flooded with synthetic wax-coated apples. Mohali-based National Agri-Food Biotechnology Institute (NABI) has developed edible coating materials from wheat straw and oat bran that will enhance the shelf life of apples and give them a shiny look.

The technology, which is being transferred to apple growers and industry, will boost the trade. Jammu & Kashmir is the country's largest apple-producing state with 71% share, followed by Himachal Pradesh. It is also grown in Uttarakhand, Nagaland and Arunachal Pradesh. The technology of NABI has been successfully managed to increase the shelf life of apple by 35-40 days and peach by 8-10 days while the existing technology by coating it with shellac (raisin) increases the shelf life of apples by 20-25 days only. Currently, shellac is not being used for peach coating.

"We have developed a surface coating technology based on non-toxic and edible polysaccharides from agricultural by-products that would prolong the shelf life of perishable fruits and vegetables. The technology is cost-effective, edible and simple in use that can also increase the income of farmers," NABI Executive Director Dr TR Shar-

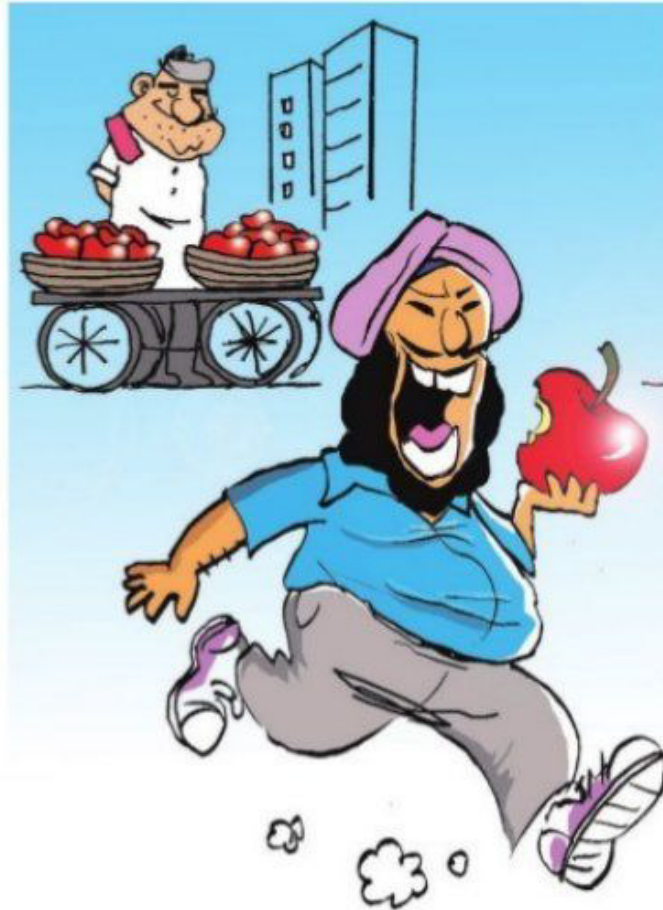


ILLUSTRATION: SANDEEP JOSHI

Country's apple production

MAJOR PRODUCING STATES

J&K, Himachal, Uttarakhand, Nagaland, Arunachal

2017-18
22.85
lakh tonne

India's peach production

MAJOR PRODUCING STATES

Himachal, J&K, Haryana, Punjab, Uttarakhand, Tamil Nadu, Nagaland, Sikkim

2017-18
1.17
lakh tonne

ma told The Tribune.

The technology will not only reduce post-harvest losses of apples and peaches but will also help Indian farmers to compete with imported fruits. According to the industry, post-harvest loss of the farmer is estimated at around 25-30%.

"We have successfully

conducted trial on apple and peach and ready to transfer the technology to the industry," Sharma said. NABI is also in the process of developing a similar technology to prolong the shelf life of 'kinnow', primarily grown in Punjab, Haryana and Rajasthan.

Biodegradable and edi-

ble polysaccharides provide a thickening effect and have a film forming ability that can be used to prepare coating materials. The coating technology is simple and can be applied at the farm-level, he said. Coating of fruits helps in delaying the ripening process and loss of weight. It also maintains firmness and sensory qualities during transportation and storage.

This organic coating does not require peeling off the skin of the fruit, a rich source of nutrients. "Since our coating material is edible and non-toxic, consumers can have it without doing so," he said.

"The consumer is unaware of the coating material used in fruits. Apart from raisin, the fruits are coated with chemicals such as plastics which are not good for body. These materials kill antioxidants in the body and are even responsible for premature ageing," said Pallavi Jassal, a Chandigarh-based nutritionist and dietician. The consumer must wash such fruits properly with coarse brush before consuming, she added. The second option is to peel off the skin.

Apple growers are permitted to use a certain quantity of wax on apples in several countries, but often they use synthetic wax. Several types of wax used on fruits are raisin, beeswax, shellac, carnauba and petroleum jelly. Ingestion of synthetic wax beyond a prescribed limit is unhealthy.

