

Bikaner district is suitable for growing ware and processing potato

In a country like India where the land utilization for agriculture purpose has reached to the maximum, there is a very little or almost no scope of horizontal expansion in the area where agriculture is being practiced traditionally. The western part of Rajasthan, most of which falls under the *Thar* Desert, had so far very little area under cultivation owing to scanty rainfall and very deep water table. However, the Rajasthan canal has brought agriculture prosperity in the region through enhanced and assured water supply through irrigation. But it was observed that farmers' of the region were not cultivating potato, though it is being consumed here in a very large quantity. The processing industries in this region also get their potato supply from the far off regions of Indore and Uttar Pradesh.



Admiring her first potato harvest in a farm near Bikaner town

The modeling studies carried out at ICAR-Central Potato Research Institute, Shimla indicated that this area is suitable for cultivation of potato with a sufficient growing window for potato. The night temperature of this region was also found to be favorable for good potato yield with high tuber dry matter. Looking at the possibility of growing potato with high yield and also which is suitable for processing industries established in and around Bikaner, particularly the *Bhujia* industries, which require potato in very large quantity and presently which are dependent on potato supply from far off areas, it was decided to conduct some exploratory trials in the region to see the suitability of the area of potato cultivation in this area and also to identify varieties for this area.

For this purpose, ICAR-Central Potato Research Institute, Shimla conducted exploratory trials at farmers' field on 16 locations in Bikaner District in collaboration with ICAR- Central Institute of Arid Horticulture, Bikaner during 2016-17. The results of these trials were very encouraging. Out of the seven varieties tried there (Kufri Khyati, Kufri

The modeling studies carried out at ICAR-Central Potato Research Institute, Shimla indicated that this area is suitable for cultivation of potato with a sufficient growing window for potato. The night temperature of this region was also found to be favorable for good potato yield with high tuber dry matter.



Clean and bumper potato production at a farmer's field



Garima, Kufri Chipsona-4, Kufri Pukhraj, Kufri Frysona, Kufri Surya and Kufri Jyoti), table variety Kufri Garima and processing varieties Kufri Chipsona-4 and Kufri Frysona did very well with average yields over 30 t/ha, while the table varieties Kufri Khyati and Kufri Surya yielded about 25 t/ha.

The exploratory studies have shown that there is a great potential for growing potatoes in the region with high productivity. In this region, wheat is grown predominantly during *rabi* season. The potato, which has a slightly less water requirement than wheat, even has a capability to replace wheat, owing to its shorter duration. Besides, the sprinkler irrigation system being followed here further reduces the irrigation water requirement of potato, making it more competitive than other crops. These virtues of potato will not only lead to horizontal expansion of potato, but the introduction of potato will cater to the local market needs and the requirement of *Bhujia* industries. Potato, being a cash crop, thus may improve the livelihood of local farmers as the market price of potato is higher in this region since most the supplies come here from 400-700 km distance, adding

not only to food miles but also to cost of potato due to high transport cost.