

## Carrot Pusa Rudhira Triggers Profitability and Entrepreneurship



Soodna village on the outskirts of newly carved Hapur district of western Uttar Pradesh is poised to become 'carrot village'. Thanks to *Pusa Rudhira*, an improved carrot variety developed and introduced by Indian Agricultural Research Institute (IARI), New Delhi. Soodna is one of the four villages adopted by IARI in the year 2010 for improving farm production and profitability in an integrated manner and to develop it into a 'model' village. Conventional cropping pattern of wheat-rice-sugarcane-vegetables was prevalent there. Farmers of this village were growing carrot among many other vegetables. However, carrot cultivation was not much remunerative before the introduction of *Pusa Rudhira*. Keeping in view the potential of carrot cultivation in the village, the IARI in 2011-12 introduced *Pusa Rudhira* on a small area of 1.75 acres of Sh. Charan Singh, a marginal farmer in the village.



Regular advisories were provided to optimise use of farm inputs in the crop. The farmer could harvest a bumper crop of *Pusa Rudhira* yielding 393.75 q/ha, which is about 10 q/ha higher than the prevailing variety. It provided a net return of Rs 2,64,286.00/ha, which was 37% higher than that of local variety. Superior quality traits of the newly introduced variety led to 18% higher price in the local market. *Pusa Rudhira* fetched higher price of Rs 928.00/q which was Rs 140.00/q higher than prevalent variety, due to its attractive long and deep red roots, red coloured core, uniformity in shape and size and more sweetness having TSS value of 9.5 oBrix.

As seeing is believing, better performance of *Pusa Rudhira* in terms of higher productivity and profitability also interested other farmers of the village. During winters of 2012, another 20 farmers requested the seed of *Pusa Rudhira* and 200 kg seed was provided on cost basis.

Consequently, *Pusa Rudhira* spread in about 60% area (90 acres) under carrot cultivation in the village within a year of its introduction. Enthused with the profits from *Pusa Rudhira*, carrot farmers adopted mechanized cleaning of carrots by procuring three cleaning machines on community sharing basis, which facilitated faster washing and also minimized damage to carrots. Higher productivity of *Pusa Rudhira* coupled with premium price in the next season provided farmers with an impressive net income of Rs 2,22,690.00/ha. Popularity of *Pusa Rudhira* has spread to different markets in Delhi and NCR. In rabi 2013-14, 120 acres (75%) of carrot area was under this variety. In years to come, *Pusa Rudhira* is expected to cover more and more area and remain dominant variety.



Consequently there is increasing demand for *Pusa Rudhira*. Sh Kamal Singh and Sh. Jaibhagwan Saini also marginal farmers, ventured to take up the seed production of the variety. The IARI scientists provided technical guidance and support. An extra income of Rs. 58000.00 is expected from sale of Rs 145 kg of carrot seed, which was produced in last year. No wonder these farmers are potential entrepreneurs of tomorrow.

*Pusa Rudhira* is also nutritionally rich as compared to other carrot varieties. The variety was tested to have higher levels of carotenoid (7.41mg) and phenols (45.15 mg) per 100 g. The primary benefit of these substances lies in their antioxidant property that guards against certain types of cancer, apparently by limiting the abnormal growth of cells. *Pusa Rudhira* is a boon to farmers and consumers as well.

(Source: CATAT, IARI, New Delhi)