

Intercropping pays dividend to farmer

Roop Chand Kahar, a farmer of village Nadi ii (Ajmer, Rajasthan) was growing flowers and vegetables with traditional method of agriculture. He was not earning desired profit due to pest problem and higher labour cost. The idea of intercropping of marigold + coriander, marigold + cabbage, marigold + cauliflower, marigold + tomato and marigold + chilly helped him to harness potential yield and achieving more profit as compared to sole crop.

AJMER is known for vegetable, flower and seed spices cultivation. The farmers of Ajmer, Pushkar Kekri and Pisangan block, in particular prefer to grow marigold, chrysanthemum and rose as flower crop and tomato, chilly, cauliflower, cabbage, onion and coriander as vegetable crops. The micro-farming situation of Ajmer is conducive for vegetable and flower cultivation as soils of the district is sandy loam. The farmers in this area grow sole crop of flowers and vegetable. Initially they were earning good profit but with the passage of time, the productivity and profitability of these crops decreased consistently due to pest problems particularly nematode and borers and higher labour cost.

KVK intervention

Sh. Roop Chand came in contact with KVK, Ajmer and discussed his problem with KVK scientists. He wanted some intervention/solution for pest problem, reduction in cost of cultivation and more returns per unit area. As a result of discussion with experts of Agriculture Department and NRCSS, the KVK scientists and Sh Roop Chand both came with an idea of intercropping. The objective was to utilize inter-row space and available inputs judiciously. He was advised to take marigold as main crop to reduce the nematode problem. Sh. Roop Chand decided to take



Sole crop of Marigold

intercrop of vegetable viz. cauliflower, cabbage, tomato, coriander and chilly with marigold. By adopting this system, he is utilizing inter row space, irrigation water and other inputs efficiently and earning more profit with same land.

Result

Sole crop of vegetable (cabbage, cauliflower, coriander, tomato, chilly) gave average net return of ₹ 3,15,000 per hectare with BC ratio of 3.33. While in case of marigold as sole crop net return of ₹ 4,80,000 per hectare and BC ratio of 5.00 was observed. Innovative technology of intercropping of vegetable (cabbage, cauliflower, coriander, tomato, chilly) with marigold gave net return of ₹ 7,60,000 per hectare and BC ratio of 6.06.

Outcome

Practice	Area (hectare)	Gross income (₹)	Total expenditure (₹)	Net return (₹)	BC ratio
Sole vegetable production (cabbage, cauliflower, coriander, tomato, chilly)	1.0	4,50,000	1,35,000	3,15,000	3.33
Sole marigold production	1.0	6,00,000	1,20,000	4,80,000	5.00
Intercropping (marigold + vegetables)	1.0	9,10,000	1,50,000	7,60,000	6.06

Impact

Intercropping of vegetable with marigold not only increased profitability per unit area but also it has been found effective to keep root nematode population away. Beside this, marigold serves as trap crop for borers also. Using inter-space in marigold keeps weeds also under control as no space is available for weed development. There is a huge demand for flowers like roses, marigold, chrysanthemum etc. in ajmer due to religious places



Sole crop of chrysanthemum



Sole crop of Cauliflower (with solar light insect trap)



Marigold intercrop with coriander



Marigold intercrop with cauliflower



Marigold intercrop with cauliflower



Marigold intercrop with cabbage

of *Dargah Sharif* and Brahma temple. Sh. Roop Chand derives online price and accordingly sells his produce vegetables in cities such as Udaipur, Delhi, Jodhpur, Agra etc. or elsewhere from where he gets more return.

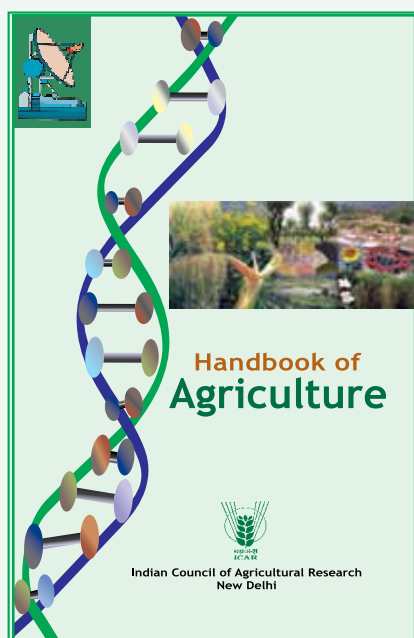
He used to share his every day activity, field photos and harvested produce on social media also. He used drip irrigation method to improve water use efficiency. He is passionate about creating awareness among other farmers and wants to work with a focus to build stronger, self reliant and better citizens for tomorrow. He strongly recommends the technology of intercropping of vegetables and spices with marigold / chrysanthemum

to increase profitability per unit area. Being inspired by Mr. Roop Chand, the farmers of nearby villages such as Amba Masiniya, Nadi i and Tabiji decided to adopt the technology to improve their own profit and production.

For further interaction, please write to:

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TECHNICAL SPECIFICATIONS

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