

## Success story.

The village has a good potential for tomato cultivation but at present the cultivation and production is low. This is mainly due to non availability of improved variety and seed coupled with non adoption of improved package of practices. The reason for low production in the district is also because of poor marketing facilities and lack of post harvest management. With a view to educate the farmers about the improved technologies and also to increase tomato production, KVK Mokokchung organized a farmers training programme on Improved Tomato cultivation practices at Kobulong during 2008 where 30 farmers attended the training. Apart from theoretical classes on various managerial practices, demonstration on nursery bed preparation, sowing and its management were also conducted. After the training seeds of tomato var. Megha-1 (which is an improved high yielding variety) was distributed to the farmers.

During the present case study the following information were obtained.

### Cultivation practices before and after intervention

Sl	Before	After
1	Only local varieties which are low yielding were used due to non availability of HYV seeds	HYV Megha-1 was introduced in some of the farmer's field.
2	Seeds are never treated with chemicals so due to disease infestation germination of seeds are badly affected.	Seeds were treated with Endofil M-45 before sowing in the nursery hence, 96% germination was achieved
3	Never raise the crop in nursery. They usually clean a small area and broadcast	Raised nursery beds of convenient sizes were prepared and treated with Endofil M-45 and

	the seeds randomly. Therefore due to overcrowding, the seedlings are not healthy	then the seeds were sown in line. After sowing, the seeds were covered with thin layer of powdered FYM and light irrigation was given till the seedlings attain transplanting age.
4	When the seedlings are ready for transplanting they normally uproot and plant it in the main field without treating the soil. Therefore, most of the plants suffer from disease infection.	Proper pit size was dug, treated and pits were filled with recommended dose of NPK along with well rotten FYM mixed with top soil. The seedlings were then transplanted in the pits and light irrigation was given after planting.
5	Farmers never maintain spacing which results in poor plant growth and development and also reduces the yield.	Plants were maintained at a spacing of 60 cm row-row and 40 cm plant-plant.
6	The farmers depend purely on rain and seldom irrigate the crop. Therefore, the crop, especially during dry season suffers from moisture stress and results poor crop performance.	Irrigation at an interval of 7 days (or as per availability of rainfall) was given during the growing period but care was taken not to flood the fields.
7	After planting farmers leave the crop without any operations like mulching/earthing up, staking etc.	Intercultural operations like timely weeding, covering the exposed roots with soil, staking the plants when they are three weeks old etc were done. This practice helps in removal of host plants for pest/disease pathogens, conserve moisture and also give good support to the growing plants.
8	Farmers are often not aware about the use of agro chemical in their fields. Even if they use they use it randomly which affects the crop, and sometimes due to lack of proper information they even use the wrong chemicals. Fertilizers are also	Endofil M-45 @ 2-3 gms/lit of water was applied from the nursery stage till the plant matures at an interval of 10 days. As soon as the crop starts bearing fruit, application of chemical was stopped. 1% Urea solution was then applied to the plants in the form of

	applied at high dose leading to over fertilization and crop damage.	foliar spray at an interval of 15 days till the fruits were matured. Urea application was stopped when the fruits start to ripe.
9	<p>Tomato fruits get spoiled in the field or at home for the following reasons:</p> <ol style="list-style-type: none"> <li>Fruits are harvested in bulk but due to market problem the fruits cannot be sold off quickly.</li> <li>Mixing of disease infected fruits with the good ones leads to fast decaying of the fruits which becomes unmarketable.</li> <li>Lack of knowledge in post harvest technology.</li> </ol>	Farmers were imparted training on proper sorting/grading and packing of tomato fruits and also value addition like preparation of sauce etc.



Before (Local cultivar)



After (Improved practices)



Fruiting stage

Economic impact.( sold @ Rs 10/kg)

Yield (Q/ha)		Increase in yield (%)	Cost of cultivation (Rs/ha)		Gross return (Rs/ha)		Net return (Rs/ha)	
Before	After		Before	After	Before	After	Before	After
145	263	44.86	49,850	55,900	1,45,000	2,63,000	95,150	2,07,100

