

MAJOR CONSTRAINTS IN OILSEED PRODUCTION

On the basis of discussions made in previous chapters, it was observed that there are certain major constraints responsible for slow growth in different oilseed crops in various regions of the state. If these are eliminated, the growth in oilseed production can be accelerated to many fold. In the present chapter an attempt has been made to identify the major constraints responsible for slow or no growth in production and average-yield of major oilseed crops in the state.

8.1. Growing under rainfed conditions :

Oilseed crops are usually grown under rainfed conditions in different regions of the state. The percentage of irrigated area under different oilseed crops has been shown in Table VIII-1.

Table VIII-1. Percentage irrigated area under different oilseed crops during 1979-80 in Uttar Pradesh.

Crop	Regions					State
	Western	Central	Bundel- Khand	Eastern	Hill	
Til	4.23	0.69	0.50	0.05	0.80	1.11
Groundnut	1.10	0.56	7.74	0.10	0.36	0.84
Linseed	5.92	5.25	3.21	3.94	1.56	3.72
Rapeseed & Mustard	69.23	47.59	8.30	41.23	49.71	54.18
Castor	0.11	-	1.35	-	-	1.53
Total oilseed	30.02	10.25	3.15	18.58	41.37	22.20

It is clear from the above table VIII-1 that more than

90 per cent area under oilseed crops is rainfed except rapeseed-mustard crop in the state. The pattern of monsoon is quite erratic, the water stress at critical stages of crop growth, often leads to reduction in yield. It has been demonstrated that two irrigations after sowing gave double yield in linseed crop in the state. Therefore, assured irrigation to the oilseed crops can boost production and yield in the state. Atleast rabi oilseed crops should be grown under irrigated conditions.

8.2. Inadequate application of fertilizers :

Oilseed crops are usually grown under poor fertilization which is one of the most important reasons of low yields in the state. It has been established that these crops are very much responsive to the application of fertilizers particularly rapeseed-mustard. Linseed crop can yield upto 15-20 q/ha. if 40-50 kg. N and 20-25 kg. P_2O_5 /ha. are applied. Addition of 60 kg.N/ha. in Toria and 80 kg.N/ha. in mustard resulted in significantly higher seed yield over control. Balanced fertilization in oilseeds would go alongwith in raising the level of production and productivity in the state.

8.3. Non-availability of good quality seeds of improved varieties:

Lack of good quality seeds of improved varieties in sufficient quantity leads to reduction in yield. Mostly farmers obtain the seeds for sowing from the last years crop produce which being inferior in quality, result in reduction in seed yield. The possible reasons for non-adoption of these varieties

may be susceptibility to various pests and diseases and instable yield behaviour overtime under varying agroclimatic situations. Thus, there is an urgent need to multiply good quality breeder seed and distribute them to cultivators through various government or non-government agencies prior to sowing period. It has been seen that farmers go from one seed store to another in-search of good quality seeds during sowing time. It should be managed in such a way that cultivators could receive the seed at their villages. Hence, it is necessary to make the cultivators familiar with new varieties which should be available to them.

6.4. Short duration varieties :

With the increase in irrigational facilities in the state and regions, it has become essential to improve the cropping intensity of the land. Accordingly, we will have to searchout the varieties specially in Toria which may fit in multiple cropping programme between kharif and rabi seasons. It is also desirable to cut down the span in mustard varieties to make them suitable for dry conditions.

6.5. Lack of varieties resistant to pests and diseases :

Aphids are the most damaging pest of Brassica crops and so far there is no natural source of resistance to be utilized for their control. Similarly, Alternaria Leaf blight and white rust, sometimes cause considerable damage to the crop at different stages, specially, because chemical control measures

are not very effective and safe and they cost beyond the pocket of the poor farmer. Similarly linseed bud fly is the most damaging pest to the linseed crop particularly when sowing is delayed, crop flowers and temperature is high in February. Rust, powdery mildew, and wilt are of wide prevalence and cause heavy losses annually. One of the major causes of the present low yield of groundnut crop is the heavy damage caused by pests and diseases. One per cent increase in infestation causes 26 kg. decrease in linseed yield (sood, 1977). This can be avoided to a great extent with early sowing and by cultivating early maturing varieties.

8.6. Lack of varieties for mixed cropped areas :

Even today most of the oilseed crops are sown mixed. For such situations, suitable plant types are needed to be evolved which may not hamper the growth of the main crop and affect the ultimate yield. The presently cultivated brassica varieties are of spare branching type and are tall in nature. For mixed cropping conditions, it is needed to evolve varieties having dwarf plant type and compact branching system.

8.7. Crop substitution :

Mostly oilseed crops are grown on marginal and sub-marginal lands under rainfed conditions. If assured irrigational facilities, balanced fertilization and reasonable prices are given to the cultivators then these crops are capable of substituting the other crops of that season. Atleast groundnut

in Kharif and linseed, rapeseed and mustard in Rabi can substitute maize and wheat, gram to a considerable extent provided above quoted inputs are assured to the cultivators.

8.8. Competition with wheat during Rabi season :

Linseed and rapeseed-mustard are two main Rabi oilseed crops which have to compete with wheat which is the most important food crop. Western and Eastern Regions are main producers of wheat and oilseed crops in these regions compete with wheat which showed negative impact on rapeseed-mustard acreage. Further, wheat price have also negative impact on rapeseed-mustard acreage. The results are supported by the fact that most of the area suitable for wheat is also suitable for rapeseed-mustard and wheat being an important food crop competes significantly for acreage and land allocation purposes.

8.9. Relative prices :

The relative price; i.e. the price of a crop in relation to the prices of other competing crops and input prices is important which ultimately affects the decision of the farmer to allocate a particular area under a crop. K.K.Verma and M.R.Hegde,* reported that during 1971-72 to 1976-77, increase was noted in the prices of seed, diesel oil, etc. In case of fertilizers, more than 80 per cent increase in prices was observed. Wages increased markedly. Similarly procurement prices of most of the crops have increased considerably. The prices of rapeseed-mustard

*K.K. Verma and M.R. Hegde-Rapeseed-mustard production in India-Problems and prospects 1979.

have not provided adequate incentive to the farmers to allocate more area under this crop.

8.10. Post-harvest technology :

Post-harvest technology has not received requisite attention till today. In most of the oilseeds, it is seen that as the seeds get more and more dried on the plant, the oil content also increases accordingly. At the same time over-ripening lead to shattering of seeds. In order to maintain proper viability, appropriate storage procedures have to be followed. It is estimated that about 10 per cent of the total production is either eaten away by the insects and pests or lost due to quality deterioration. A considerable quantity could be saved by proper handling of the produce.

8.11. Marketing :

Most of the oilseed crops are basically utilized by industries and oil mills. Accordingly, its marketing is rather controlled by the Mill owners instead of farmers. The market rate generally becomes about 75 per cent higher within 3-4 months of its harvesting. The stockists, millers almost double their investment simply on the cost of a short time storing investment. Such type of price policy naturally develop lack of interest in farmers for its cultivation. Efficient marketing at a remunerative support price may be the greatest incentive for farmers. The intra structural development as regards to transport and communication, scientific storage, etc., would go alongwith

in increasing the efficiency of marketing on one hand and raising the producers' share in consumers' price on the other.

Processing :

It has been noticed that most of the processing units are either centred in big cities or situated far away from the villages. Since oilseed crops are cash crops they can not be retained by the farmers. So they sell their produce at much lower rates in the nearby mandies. If processing units are established in oilseeds growing areas and assured price is given to the farmers by the millers, it will certainly boost the oilseed production. It would be better if these units are established on cooperative basis and are held responsible for the production, marketing and price of the oilseeds, the cultivators would receive more benefit of their production.

8.12. Research needed :

Extensive research is essential for the development of regional varieties. Existing varieties in all the oilseeds are much older. The plant breeders are still unable to replace varuna, inspite of intensive breeding work for most parts of U.P. This is due to the fact that rigorous screening is not done at the time of selection of entries for coordinated varietal trials. The varieties already evolved are resistant / tolerant to one disease or pest but susceptible to the other. Earliness in maturity of the varieties should be aimed to suit all particularly to rainfed areas.

Summarizing the above discussions it may be concluded that existing production potential can be increased if these constraints are removed. In certain cases, a change in only one component alone can result in spectacular increase in yield; in other, a chain of changes may be required.
