

Crop Diversification

Punjab state has been the first state in the country to initiate contract farming at government level. The main objective of this Programme has been to prepare farmers to cultivate quality and marketable produce based on demand supply chain. Farmers are required to sign contract to produce identified crops viz Hyola (Hybrid Rapeseeds Mustard), Sunflower, Durum Wheat, Malting Barley, Moong, Basmati (Pure, Hybrid, Evolved etc), Maize had a pre determined price, which is not lower than the MSP of GOI are purchased by Punjab Agro on behalf of Pvt. Buyers/Exporters and GOI.

PAFC took up the implementation first in Rabi 2002 wherein an area of 22312 acres was brought under the crops of Hyola, Sunflower, Malting Barley & Maize. During Kharif-2003 an area of 1.27 lac acres and in Rabi-2003 an area of 0.60 lac acres was brought under the identified Rabi crops and Kharif crops of Moong, Basmati, Maize, Guar & Castor. The area under the Programme has been going up and during the year 2004-05 an area of 2.49 lac acres was brought under various crops promoted under the Contract Farming Programme. During the season Kharif 2005 more than 1 lac acres have been brought under various identified crops and in Rabi 2005 it is proposed to target an area of more than 2 lac acres.

During the year 2004-05 PAFC had made necessary arrangements for procurement of Hyola at MSP i.e. Rs 1700 per qtls. and it has procured 22230 qtls. of Hyola worth Rs 378 lacs from the contracted farmers. Commercial purchase of sunflower was made at Rs.1500/- per quintal, which was higher than MSP of Rs.1340/- per quintal, from the contracted farmers and 55370 qtl. of sunflower seed was purchased worth Rs. 8 crores. Barley crop was purchased from its contracted farmers not only at contracted price of Rs. 540/- per qtl. (MSP) but also at higher price of Rs. 560-580 per qtl. and 1560 MT worth Rs.93.60 lacs was procured. Durum Wheat was procured from contracted farmers at the contracted price of Rs.660/- per qtl. (Rs.640 as MSP+Rs.20 per qtl. as bonus) and 3130 qtls of Durum Wheat was procured.

The mechanization of crops identified was also taken up simultaneously. It was important in view of the labour costs incurred by the farmers and shortage of labour during the periods of sowing and harvest. The machines were got developed/manufactured to provide support to the farmers in terms of reduced seed rate through machines, reduction in cost of harvesting operations and improved quality in post harvest handling for better price realization.

The success of the Programme could be only possible with supply of quality seeds of identified crops. The crops were identified based on the requirement of the state in terms of low water consumption and improving soil health. The quality seed of crop viz Hyola were tied up with Advanta India Ltd. (proprietary seed), Hybrid Maize varieties with reputed seed companies, Basmati, Hybrid Basmati, evolved Basmati Malting Barley (proprietary seed of UB Ltd.) and from PAU, HAU & Seed Development Corporations of India and other States.

To achieve proper yields through adoption of the agronomic practices by the farmers properly as also to ensure trace-ability, the involvement of private sector was felt essential. Accordingly the companies namely MSSSL, Escorts Ltd., TCL, & DCM were roped in to provide the extension service to the farmers and also as

buyback agents of the buyers/ processors interested in purchase of the crop for their requirement. The exporters/processors were also roped in to ensure buy back of contracted produce. Motivational camps to enthuse farmers by providing information on seed agronomic practices, assured buyback arrangements and the crop economics so that they could decide on the crop which they want to take up for cultivation.

DIVERSIFICATION in agriculture is possible and essential to save the crumbling agriculture economy and environment of Punjab. However the process and strategies of making it happen are not as easy as said. People who are actual players in the field have a definite mindset and conditioned behaviour. Conducive conditions are another aspect.

Suggestion alone is not the solution to the problem. We need to think of practical and workable strategies. First of all, it must be understood that diversification is a dynamic phenomenon and can be multidimensional. In the present context, there may be two-pronged diversification: 1) crop-wise diversification and 2) area-wise diversification.

Crop-wise diversification is related to crops outside the normal cycle of paddy and wheat and also to the shift from one variety of rice and/or wheat to some other variety that can be more useful and relevant.

Area-wise diversification is that certain areas may be identified for one set of crops while other areas for another. An added advantage of this type of diversification may be in the form of marketing management.

The following suggestions may be considered for area-wise diversification:

- There should be a survey by soil testing in various parts of the state because over fertilisation and pesticides have disturbed the macro/micro nutrients of the soil. In accordance with the results of these tests and the agro-climatic conditions, an action plan for area-wise diversification, incentives and marketing may be prepared.
- Diversification may be between two varieties of rice, for example a shift from paddy rice to superior quality basmati rice and between two crops, or to a shift from paddy rice cycle to pulses, oil seeds, floriculture, sugarcane and horticulture.
- The Kandi belt and Shivalik foothills of Doaba, the Malwa belt, Pathankot, Hoshiarpur and Ropar can be encouraged to grow lichi, mango and citrus fruits.
- Certain pockets in Patiala district are ideal for guava, ber and mango.
- Faridkot and Abohar are suitable for guava, citrus fruits like kinnow, red blood malta, etc.
- The Barnala area is good for grapes and citrus fruit.
- Bathinda, Abohar and Sangrur are good for cotton and groundnut.
- The Majha area, in particular the Ravi belt, can opt for superior quality basmati rice for the domestic market as well as export because of the agro-climatic conditions—Gurdaspur district and pockets in Amritsar and Kapurthala districts are ideal for this purpose.
- The rest of the area can be used to grow sugarcane, barley, oil seeds, pulses, groundnut, soyabean, maize, sunflower etc.

- It is also suggested that farmers may be encouraged to set up fishery, poultry, piggery, dairy, etc.
- The state government should initiate a process of agro-based industrialisation with the help NRI/private entrepreneurs.
- The required infrastructure facilities to facilitate sorting, grading, packaging along with cold storage, dehydration units and movement of produce from the producer to the consumer in the shortest time may be developed. The government should identify one centre each in Pathankot, Hoshiarpur, Rajpura (G T Road) and the Sangrur area for these activities.
- Before setting up a medium to large sized food processing units, the entrepreneurs must expose themselves to the international and national market. They must focus on the market share rather than on strategies to pay less to the farmers; only then the farmers at the grassroots level may be ready to diversify.
- The government has to come forward for the supply of quality seeds/sapling.