

root stocks, and produce sufficient volume of seedlings to cater for the relatively large needs of newly established vineyards. Furthermore, by using rooted seedlings instead of fresh cuttings, farmers would be able to gain one year on the interval needed for maturity of new vines.

It is proposed to entrust production of rooted cuttings to the Hebron Cooperative's olive nursery and to Abu-Ghazaleh's nursery in Nablus district. Distribution of grape seedlings would be subsidized and handled by voluntary agencies in ways similar to current arrangements for olives.

9.2 Expansion of trellised vineyards.

The trellising of vineyards is a major breakthrough towards raising productivity and increasing profit margins, but an important deterrent in this regard is the high capital requirement.

Trellising could be accelerated by offering cheap loans to eligible producers, i.e. those who are qualified to provide the high level of intensive husbandry practices needed by the new technique. Consequently, it is proposed to give special priority to experienced farmers in Hebron, Bethlehem and Ramallah. Intensive efforts should also go into the introduction of trellised vineyards in the Jordan Valley and coastal areas, where they could be grown under irrigation.

Loan funds for trellising would be provided by the PACC office in Amman upon recommendation from resident representatives. Voluntary agencies and local cooperative

societies could play an important role in channelling aid and supervising implementation of construction work.

Extra care should go into the selection of proper vines in trellised orchards. Late maturity is an important characteristic to consider, in addition to resistance of rootstock to Phylloxera attacks.

9.3 More efficient pest control.

Problems of grape pests were discussed earlier. Improvements in this regard aim at the following:

- a. Introducing more efficient equipment, especially in southern districts.
- b. Disseminating more effective control measures in northern districts where pest hazards are notably high.

A substantial improvement in pest control techniques could be achieved by stepping up extension efforts and credit facilities aimed at assisting individual farmers to do the spraying themselves by using better equipment and chemicals. But a sharp improvement in the effectiveness and efficiency of pest control (of grapes and other crops as well) is possible/making the needed service available at reasonable fees through local custom service units. Spraying services would be provided by nearby mechanical service units (see project no 6.5) or local cooperative societies.

The capital needs for establishing custom spraying units were detailed earlier under relevant projects. Due to the relatively high profitability of grape production, the cost