

in other types of farming.

The suggested demonstrations could be adopted by the Agricultural Development Corporation with the assistance of district extension offices.

8.6 Reducing tillage costs.

Ploughing accounts for one to two thirds of total production costs. Therefore this should be a primary target in the efforts to reduce production costs.

The suggested project comprises three main measures:

- a. Reducing the number of ploughings to one (instead of two or three), which would take place in early winter.
- b. Introduction of small orchard tractors which are fit for use in olive orchards.
- c. A much wider use of weed killers.

The first measure could be accomplished through extension education, and many farmers have already reduced the number of ploughings to one or two. The second measure would be rendered possible through the machine service units mentioned earlier (see 5.5) or by providing eligible farmers with loans to buy the prescribed types of tractors. The loans should be advanced, at concessional interest, by PACC through its regional offices.

Chemical control of weeds has since long passed the experimental stage in some areas. In view of extensive experience acquired during the course of this research and through consultations with experts, it is recommended

to spray weeds in late March through early April with a non-selective weed killer.* By spraying them at this time it is possible to kill weeds before they grow too high or reach the seeding stage, and at the same time the operation takes smaller quantities of spray. Another important advantage for this practice is that dry weeds will serve as a cover mulch for soil during the hot and dry summer months, which is effective in conserving soil moisture.

Depending on experience accumulated after the project is launched, the researcher does not dismiss the possibility of terminating the ploughing in of olive orchards and resorting to herbicides for the purpose of controlling weeds. In that case the first ploughing would be replaced by spraying land with a pre-emergence weed killer in late November (most common are Simazine or Diurex), and a post-emergence weed killer in March. While this may look like a major transformation in West Bank agriculture, it has become an ordinary practice in many parts of the United States and Israel.

The suggested project calls for making the spraying service available at a subsidized rate through machine service units (see 5.5), cooperative societies and the Agricultural Development Corporation. Capital needs for purchasing of equipment are included under projects relative to above-mentioned institutions, but the amount of working capital is estimated below. Estimates are based on the assumption

* The one most commonly used and with noted success is Ducalton of ICI.