

### c. Feeding

The grazing season commences early in December and extends through May. During this period grazing is the major source of feed, and barley is served only on a supplemental basis once a day. From June until the end of July, farmers let their flocks scavenge through stuble remaining on harvested wheat and barley fields. In August and through November, sheep and goat flocks are kept on a concentrated grain diet consisting mainly of barley and vetch. Dry fodder consists of alfalfa hay and, more commonly, shredded straw.

Due to marked variations in topography and climate, many Bedouin owners transport their flocks from one region to another in search of natural pastures. Because of the rather poor quality of pastures, animals have to scavenge over long distances in search of food. Such an extensive activity is demanding on energy and it places a ceiling on the livestock's growth potential.

### d. Pastures

Until recently there were no artificial pastures on the West Bank. In contrast, pastures consist exclusively of barren hill slopes, forests, or orchards where a variety of wild grasses emerge early in winter after preliminary showers. Due to the presence of wide areas of uncultivated fallow it is possible to support a relatively large livestock population. Production of alfalfa and other forages under irrigation is not practiced, because of scarcity of water resources and the higher comparative advantage of citrus and other forms of irrigated farming. Grazing begins as early as weeds begin to grow. There are no regulations in regard to dates and duration of grazing, and this can lead to severe overgrazing of pastures

and their rapid deterioration.

Very little effort was exerted in the past towards developing and regulating West Bank pastures, although topography and rainfall permit a substantial improvement for large areas. A considerable amount of research has been done in countries with similar or more severe aridity, and it has been demonstrated that a substantial potential exists for expanding pastures by substituting natural fallowing (which is now in extensive use in all Middle Eastern countries) by a crop rotation consisting of wheat and a special strain of Australian clover, called Medicago hespida.<sup>1</sup> FAO and ICRISAT\* have organized intensive training courses on the new technology in Australia and Algiers.

The Department of Agriculture in the West Bank is promoting the use of Medicago seeds in growing artificial pastures which could thrive productively for 3-4 years under rainfed conditions. The results obtained by farmers are encouraging, but the project has so far failed to take off on a large scale due to declining resources in the Extension Department and the lack of adequate legislation on grazing rights.

The situation of free-range grazing has deteriorated since occupation as a result of Israel's closure of large areas for security and other reasons, areas which for a long time constituted the bulk of natural pastures for West Bank livestock. This measure will be discussed later under the section on problems.

1. This was a major theme in many of the papers submitted to the FAO regional seminar on Rainfed Agriculture in the Near East, held in Amman during 5-10 May 1979.

\* International Crop Research Institute for the Semi-Arid Tropics.