

The Khamaseens result from a barometric low over Libya or Egypt and they are characterized by a sudden rise in temperature (over 15°C) accompanied by a sharp drop in relative humidity (below 20 percent). Khamaseen heat-waves may start in April and recur several times through the summer without any fixed pattern. Their intensity and duration may vary considerably but they often last for two to three days, and sometimes for much longer. The Sharav winds, on the other hand, are caused by a high pressure developing over the area itself where the subsided air is compressed and heated. Their incidence is most common in the beginning and at the end of winter. Again, the Sharav winds may cause a sharp rise in temperature (by 15°C or more) and a substantial drop in relative humidity (by as much as 40 percent). Towards their peak, Sharav conditions are accompanied by fine dust and hot dry winds.

The Khamaseen and Sharav winds constitute a major problem for rainfed patterns of agriculture. Most dangerous in particular are the hot spells which occasionally blow in April, coinciding with the blossoming season of olives. Being small and very sensitive to weather aberrations, a large proportion of olive blossoms and newly set fruits are vulnerable to desiccation under high temperature and low humidity. As the danger period is fairly long, extending usually from April 10 to May 15, the damage caused by hot spells is almost unavoidable. The question, however, is one of severity, ranging from a mild, and probably useful, drop of a reasonable proportion of olive flowers, to a disastrous and nearly total desiccation of blossoms. While West Bank olive growers realize fully the hazards posed by hot spells setting in at the wrong time, there is little they can do in this regard.

Hail Storms

Hail falls on the West Bank for four to seven days during the latter half of winter (February-March). Again the timing of hail fall and its intensity are of tremendous consequences for several types of fruit trees, notably almonds, apricots, and plums. As these kinds of trees blossom and set their fruits in February, a strong hail storm blowing at this time may inflict severe damage on fruit trees in the area. The hazards posed by hail storms as with most other phenomena discussed earlier, are particularly damaging to dry farming patterns. Irrigated farming, in contrast, is increasingly less vulnerable to weather problems in view of the long strides achieved in protected farming.

Rainfall

Rain formation in the West Bank follows the sudden change from the subtropical to the cyclone belt in autumn, and back again in spring into the former zone. Rain distribution and intensity is subject to a number of factors, such as proximity to the Mediterranean, differences in altitude, exposure to sea winds, and the angle of slope. All of these factors are reflected on the rainfall map of the country (see Map No 4). The exposure effect is clear in the Hebron plateau where rainfall increases from under 500 mm (20 in) on the coast to over 700 mm (28 in) on the peak of the plateau. Rainfall on the eastern slopes, on the other hand, decreases sharply due to the rain shadow effect, until it reaches around 100 mm (4 in) in the Jordan Valley near Jericho. The Nablus hills, though lower in altitude, receive about the same rainfall due to the "northern direction effect".

The rainy season is relatively short, with 70 percent of annual precipitation falling between November and February. London and