

Methods of Irrigation.—There are three common methods of irrigating known as check (basin), furrow, and contour.¹⁷ With the basin or check system the soil is ridged into low levees by means of a disk or ridger forming basins, each having one or more trees. Water is allowed to flow from one check to the next, by cutting the levee when the upper check is filled. A nearly equal quantity of water is thus supplied to each tree (fig. 9).

The furrow system is another means of irrigating. It is adapted to the use of small heads of water. Furrows may be used on gradual to somewhat steep slopes. The method works better if the land is graded before the trees are planted. Less labor is involved in irrigating by furrows than with the basin or check system. The objection to the furrow system is that water may not be uniformly distributed through the soil and it is nearly impossible to wet the entire soil mass. The contour method of irrigation is particularly adapted to small heads of water and steep grades, but a modification is also used on fairly level slopes.

*Drainage.*¹⁸—Excessive use of irrigation water should be avoided. The judicious use of water is an important means of checking the rise of ground water and the consequent alkali injury. Ditches should be provided to take care of the runoff and to prevent standing water. The practical way to lower the water table is to install a drainage system of tile or ditches. Drainage alone, however, will not satisfactorily correct an alkali condition.¹⁹

PEACH DISEASES AND THEIR CONTROL

Common diseases occurring in California peach orchards may be divided into three classes, diseases resulting from: (1) bacteria, (2) fungi, and (3) diseases not caused by organisms, but attributed to functional disorders.

Symptoms of Diseases.—Diseases usually have characteristic symptoms. In some cases the same symptom may indicate any one of several diseases or even possibly an insect pest, as, for example, the presence of gum. It is advisable for the peach grower to be familiar with the characteristics of the more important diseases so as to be able to recognize them if they appear, and to apply a remedy if feasible.

¹⁷ Huberty, M. R. and J. B. Brown. Irrigation of orchards by contour furrows. California Agr. Ext. Cir. 16:1-16. 1928.

¹⁸ Weir, W. W. Drainage on the farm. California Agr. Exp. Sta. Cir. 304:1-30. 1926.

¹⁹ Kelley, W. P. and E. E. Thomas. Reclamation of the Fresno type of black-alkali soil. California Agr. Exp. Sta. Bul. 455:1-37. 1928.