

quite as serious, for the water requires more attention and more skillful handling on the steeper slopes in order to prevent erosion. It is believed that while slopes ranging from three or four feet per mile to as much as four or five hundred feet per mile can be irrigated, the ideal slope of an irrigated farm with medium soil lies between 20 and 50 feet. With this slope less levelling of the land is required and water can be supplied more rapidly and with less attention than with either the flatter or the steeper slopes.

The new farmer should also pay particular attention to the accessibility of water for his farm. Land within a reasonable distance of the source of supply should be selected, and not where long lines of flumes or heavy fills are necessary through which to convey water to it. The adequacy and constancy of the water supply should also be investigated. The amount found necessary will depend considerably upon the climate and the nature of the soil. For diversified crops on the average soils of Idaho, Colorado, Oregon and Washington, it has been found that at least two acre feet must be delivered within the four months irrigation season beginning May 1st. Cooler climates and higher altitudes will undoubtedly require less, while lower altitudes with longer seasons or more porous soils will undoubtedly require more.

Too much stress cannot be placed upon the benefits that are derived from careful preparation of the land for irrigation. It is safe to say that not over one acre out of every ten now irrigated in the United States is prepared for irrigation in the best possible manner. It will be admitted that this is a sweeping statement and one that will not be believed by all irrigators, but it is unquestionably true. Land should be so prepared, whatever irrigation system is used, that the irrigation water may be supplied evenly to its surface, for without even application there is either waste of water and time, or loss in crop production. In all of my experience I have never found an irrigator who admitted or complained of the fact that he had spent too much time or money in the preparation of his land for irrigation; the other extreme almost invariably obtains. Time does not permit a detailed discussion of the methods that should be recommended for the preparation of the land, but it is safe to say that there is but little land that lies so well but