

ORCHARDS NEED CULTIVATION.

The following opinions of experts in orcharding will confirm the views always advocated by this journal on orchard treatment.

CULTIVATE THE ORCHARD :—Mr. W. F. Murray of Missouri, writes in *Farm and Home* : I attribute our success to thorough cultivation and careful pruning. By no other means could we have grown such apples in such a dry, hot summer, on trees planted sixteen years ago on land already very much worn, and at the same time secure six to twelve inches of new growth and plenty of fruit buds for a crop next season. This agreeable lesson confirms my faith in thorough and continuous cultivation, and careful annual pruning from the time the trees are planted until they cease to produce paying crops ; then cut them down and burn them. Why should old dilapidated, half-dead trees, full of diseases and prolific breeders of insects, cumber the ground ?

One advantage of cultivation is that the rough, broken and mellow condition of the soil fits it for receiving the rainfall more rapidly than a smoother, more compact surface, and for retaining moisture much longer. I think this the best way to irrigate. Another advantage is the cutting and breaking of the roots, thereby greatly multiplying fibrous roots, increasing the vigor and fruitfulness of trees. In my own orchard—the seven acres of 16-year old trees—I have but four dead trees, and only ten that are damaged to an extent worthy of notice. I know of one man in our county that can hardly read or write, yet he has an orchard which he plows deep and cultivates thoroughly every year ; and lo ! we behold this man growing the finest apples received at the principal shipping station of our country,—the wonder and admiration of all who see them.

TREES IN GRASS.—Prof. L. N. Bailey writes in *Bulletin 31* :—Permanent sod is an injury to the orchard. This has been proved in the experience of nearly every successful orchardist. It is forcibly illustrated in the instance of the old college orchardist. In the earlier experiments conducted by Dr. Beal the same fact was emphasized. For some years he kept a part of the trees in sod, others were cultivated thoroughly, while still others were cultivated at varying distances from the body of the tree. Even as early as 1874 he found that "trees in grass made less growth, looked yellow in foliage, and bore smaller fruit and apparently less of it." In 1875 he observed that "the evidences look more and more strongly every year against the propriety of leaving trees, in our section, in grass. They have stood the severe winters no better ; they have borne no better ; the apples are smaller, the trees grow more slowly ; a greater proportion of trees have died than of those cultivated each year. So marked have been the results that we have plowed up about half that part of the orchard which was left in grass"