

agricultural output of Colorado comes from the fruit-farms. Year after year more trees are being planted. The fruit regions of Colorado are all on the western side of the "Rockies," with the exception of a few well-sheltered valleys on the eastern slope. The apple is the great staple fruit crop. It is grown on both slopes, and as high as 7,000 ft. in elevation.

The peach is said to be the bonanza (mine of wealth) fruit crop of Colorado. Elberta is the queen of Colorado peaches: its superiority is acknowledged, as it has never failed to dominate every market it has reached. Peach-trees in Colorado come into profitable bearing in three years, and after twenty crops are still vigorous, producing excellent crops. In the fruit section of Colorado the canning of peaches is a growing industry. The canneries pay £6 per ton for fruit just as it comes from the tree. Yields of 15 tons per acre are not uncommon. The net return, after paying all expenses of packing and delivering, frequently runs above £60 per acre.

The worst enemy of the Colorado orchardist in the past has been spring frosts. Now he does not fear them. Armed with orchard-heaters or "smudge-pots" he can fight the frosts. In 1908 these were first tried to any extent. It can now be taken as an accepted fact that a Colorado orchard in the fruit-belt can be depended upon for a crop every year if the owner will simply provide himself with a means of protection. A peculiar advantage that Colorado enjoys is that these cold snaps come without violent winds, and therefore it is possible to heat an orchard and hold the heat in the trees. There are two types of heaters used by Colorado orchardists, one burning coal and the other crude oil. It is said the coal heaters seem to have some advantage in cost of fuel, while the oil heaters claim supremacy in the production of heat and quickness and ease of operation. The coal heaters are sheets of iron or wire baskets. A handful of cotton-waste soaked with oil is put at the bottom; over this is put dry wood, and on top about 10 lb. of coal. When the alarm of "Falling temperature" is given the orchardist lights the oil-soaked waste, and in a few minutes the coal is a glowing mass, radiating a large amount of heat, while the smoke hangs about the upper branches of the trees, acts as a blanket, and prevents radiation.

The oil heaters are of various patterns, ranging from a common sheet-iron bucket to elaborate and complicated Argand burners.

An average crop of fruit in Colorado is generally worth from £60 to £200 per acre net, and to equip an orchard with heaters, including a year's fuel-supply, ranges from £5 to £9 an acre. Once equipped the heaters will last indefinitely. The average cost need rarely exceed £1 per acre per annum, including fuel and labour—surely a cheap way of insuring against spring frosts!

My visit to Grand Junction was to view the land which comes under the Grand Valley Irrigation Project; to note the effects of irrigation on hitherto desert lands; to visit the large sugar-factory, the first established in Colorado, and one stated to be uniformly successful; and to gain some knowledge of co-operative marketing and the aims and working of associations like the Fruitgrowers' Association. In this connection I have to acknowledge the courtesies extended to me by Mr. Aupperle, secretary of the Water-users' Association; Mr. L. Antles, secretary, Chamber of Commerce, Grand Junction; and Mr. W. Harrison, County Agriculturist, Mesa County.

The plan of the Grand Valley Irrigation Project provides for the irrigation by gravity of 42,750 acres, and of 10,250 acres by electrically operated pumping plants located on the gravity canal.

Situated in latitude 39° N., the average elevation of the irrigable area is 4,700 ft. above sea-level; the temperature ranges from 15° below to 100° above zero, and the rainfall on the irrigable area is about 8.5 in. annually. The Denver and Rio Grande and the Colorado Midland railroads connect the Project with markets of the Mississippi Valley and the Atlantic and Pacific coasts.

The lands included in the Grand Valley Project consist of two general types—sandy loam and heavy soils; the former adapted to the growing of the fancy fruits for which the valley is justly famous, and the latter for the general crops of cereals, sugar-beets, lucerne, &c. The co-operative spirit is strongly developed in the district in producing and marketing, and in manufacturing organizations.

The foundation upon which the growth and prosperity of Grand Junction rests is fruit. The town and its environs has a population of over eight thousand people. Directly about Grand Junction is 25,000 acres of land in fruit or suitable for fruitgrowing, with about 8,000 acres in full-bearing orchards. The town itself is on low-lying ground close to the Grand River, surrounded by orchards, which spread out, rising ridge upon ridge, in all directions. North of the town is the celebrated Fruit Ridge district, a series of red sandy ridges, where are, it is said, the finest and most successful apple and pear orchards in the country. It is contended that the Grand Valley ships every year more fruit than some of the States that are considered fruit-producers. Frequently there have been over a hundred cars a day loaded and shipped, and in the shipping season, from August to March, from twenty to thirty cars per day are loaded and shipped away to various parts of the United States. I had an opportunity, through the kindness and courtesy of Mr. Harrison, County Agent, of seeing a very large area of the country around Grand Junction and the splendid orchards stretching everywhere laden with fruit.

The value of orchard-heaters was conspicuously noticeable where orchardists by using heaters had saved their season's crop of peaches, whereas in other orchards where the owners had neglected to take precautions to prevent injury by spring frosts the trees were bare. That this new form of "crop insurance" pays there can be no doubt. It is seldom necessary, as spring frosts are not frequent, but effective when needed.

The local beet-sugar factory is an important industry, and is well supplied from year to year with the raw material for the production of sugar. The residue is readily bought up by the dairy-farmers, who feed it to their dairy herds along with other suitable foods. The price