

shipping business must be one of growth, but the first essential is the fruit itself, without which, of course, no shipping facilities will ever be supplied.

In traveling through the country, either by train or buggy, one is forcibly impressed with the number of streams of water. Upon examination, it will be found that nearly every farm has upon it a good spring or stream of living water. The county is ramified by the large and small tributaries of the Willamette. Big Luckiamute, Little Luckiamute, La Creole, Salt, Mill, Yamhill and a score of other streams, fed by hundreds of little branches and thousands of springs, flow continuously through the year. Water is everywhere, and every drop of it is clean and pure, coming from the crystal fountains of the Coast range, or welling up through the sand and gravel of the prairies, from the pure bosom of the earth. What an effect this abundance of pure water has upon the dairy interests, no farmer can fail to appreciate.

Mention has been made of the cloudless skies of harvest time, and in this consists one of the greatest of the many blessings showered upon the husbandman of this region. To render this intelligible to one not familiar with the peculiarities of the climate of the Willamette valley, a brief summary of climatic conditions and causes is necessary. The leading characteristic of the climate is the equability of the temperature, which is much higher in winter and lower in summer than in corresponding latitudes east of the Rocky mountains, or on the Atlantic coast. The primal cause of the high average temperature in winter is the Japan current, the stream of warm water flowing along the coast, diffusing an agreeable mildness, and entirely overcoming the rigors of winter incident to this latitude elsewhere. The warm, moisture-laden winds

sweep in from the ocean until they encounter the summits of the Cascade mountains and the colder currents of air in that high altitude, when the moisture is condensed and falls in copious showers, at an average temperature above forty degrees. From November to April these rains are frequent, rain falling on an average of twenty days in each month. Once or twice during the season, when an easterly wind sets in, there is a light fall of snow, and the thermometer indicates from ten to twenty-five degrees above zero for a period lasting from two days to two weeks. This is the only taste of winter weather experienced. It is during this brief period, which does not occur every season, that stock requires extra attention and feeding. The "snap" is terminated by one of the strong ocean winds, called a "chinook," which, with a temperature of about fifty degrees, causes the snow to disappear in a few hours, soon to be succeeded by the ever welcome rain. About the first of March the rains generally diminish in frequency, offering the farmer opportunities, during March and April, to plow and seed his land, such as has not been planted in winter wheat. In May the rains generally cease, except an occasional shower, and during the months of July and August scarcely a drop falls, giving the farmer an opportunity to harvest his crop at his leisure, without fear that it will receive the least damage by rain. Grain is cut, and, in some cases, permitted to stand in shocks in the field for several weeks, waiting for the thrasher. The temperature of the long, rainless summer days is moderated by the cool breezes from the mountains, on both sides of the valley, especially the Cascades, whose highest peaks wear a perpetual robe of snow. Cool breezes from the sea also exert their influence. It is seldom the thermometer indicates ninety degrees at midday, and even then