

was started last year by a number of enthusiasts throughout some of the States in the direction of advocating the growing of lucerne on every farm. The plan was to unite all interests in a nation-wide campaign for the general growth of lucerne to be conducted in co-operation with farmers' institutes, bankers, business men, commercial clubs, agricultural associations, live-stock and dairy associations in any community where the people were anxious to improve their conditions agriculturally and were willing to give their time and money for an enthusiastic campaign. It is contended that 10 acres of lucerne on every farm in the United States would give in round numbers 64,000,000 acres of lucerne, that before the next decade had gone into history 100,000,000 acres of lucerne would be grown in the United States, and that if this is carried into effect every one in the States will be infinitely better off than to-day. The fields will be vastly more fertile, and the crop-yields will be bigger and better; the herds will be larger, and the quality of butter-fat will be greatly increased; there will be happier homes and better citizens.

Ex-Governor Howard, of Fort Atkinson, Wisconsin, whose reputation as a dairy-farmer and as proprietor of the *Howard's Dairyman* newspaper is world-wide, and whose dairy-farm I had an opportunity of visiting and there viewing his fine dairy herd of Guernsey cows, says that "No one more literally abets the growth of two blades of grass where one grew before than he who effectively urges the cultivation of lucerne upon those who are strangers to it, and no one is more truly working for the benefit of agriculture, the basis of all prosperity, than he who proclaims its excellence as the foremost forage."

It is said that lucerne-growing marks the highest development in our modern agriculture, and lucerne is the agricultural wonder of the twentieth century. Lucerne is the most perfect animal-food known to man; it is very productive and cheaply produced. It is the most highly nutritious and palatable of feeds for all classes of farm-animals—dairy cows, beef cattle, sheep, swine, horses, poultry, and also bees, much honey being obtained from lucerne wherever largely grown.

Well-established fields, properly looked after and cultivated after each crop is harvested, at five and six years old yield better crops than those of two or three years old. It is difficult to say how long a life lucerne may have. In Colorado there are fields that have been producing hay for over twenty-five years, and producing just as luxuriant growth apparently as younger fields. In California there are fields considerably over fifty years still producing excellent crops. The annual value of the lucerne crop in California approximates £7,000,000, and the acreage devoted to its cultivation is gradually increasing.

Lucerne more than any other crop is that universally grown in the western States. Many farms are devoted exclusively to lucerne-production, and the hay is fed out in the winter season to range live-stock, or baled and shipped to the cities, the fruitgrowing districts, the mining camps, and the timber camps. In Oregon lucerne yields from 6 to 11 tons per acre in three cuttings. In the stack it commands from £1 12s. to £2 4s. per ton, and when baled £2 8s. to £3 per ton. In some States its value is considerably higher. In Idaho, for supply to eastern States for dairy herds, the price averages £5 4s. per ton.

On my eastern journey through the States, after crossing the Rocky Mountains in Colorado at an altitude of 10,240 ft. above sea-level, and on going down the eastern slope, at an altitude of 8,000 ft. lucerne was being cut and baled. I was assured that a great part of what I saw was to be shipped to Australia to feed the starving stock in that country through drought. Such being the case, it had to be railed some 1,400 miles to San Francisco, and then shipped some 7,000 miles to Sydney; and one can imagine that the price of such food shipped that distance must have been fairly high when it reached its destination in Australia.

The grinding of lucerne hay into meal is becoming an established industry, particularly in the western States. Lucerne-meal is the entire lucerne hay ground, and does not contain an admixture of ground lucerne straw or other foreign material. For chickens, finely ground lucerne-meal is sold at high prices in the eastern States as an egg-compelling nostrum. The meal is also used in the make-up of concentrated feeding-stuffs.

In Argentine nearly all cattle slaughtered in the slaughtering, freezing, and chilling establishments are either raised on lucerne pasture or are brought in from native-grass pastures and finished on lucerne. The lucerne pastures in that country are reckoned the year round to maintain one adult steer upon 2½ acres of land, while in the fattening-period this is increased to 3 or 3½ acres. As a rule no other food is used to supplement the lucerne pastures except in occasional times of drought or invasion of locusts. Some owners, however, are beginning to finish their cattle on corn. Some cattle-growers make it a practice to turn the cattle for a short period on to native-grass pastures, believing that such a change from a lucerne pasture is beneficial. It is said by authorities that lucerne is not grown in Argentina so extensively as it could be. This is, of course, dependent a good deal on the price of cattle. The present satisfactory prices obtained encourages cattle-raisers to convert the suitable lands for grain-growing into lucerne pastures. The rapid growth of the beef-cattle industry during the past fifteen years in the Argentine corresponds with the development of lucerne for grazing purposes. It is contended that the extensive seeding of lucerne pastures by the estancieros (owners or overseers of large grazing farms or estates) is what has made the expansion of the cattle industry possible.

The enormous and successful use of lucerne pasture for fattening cattle in Argentina cannot be overlooked in any consideration which may be given to the advancement of the meat or dairy industries in other countries where lucerne will grow. It must be remembered, however, that the Argentina is situated largely in tropical or sub-tropical latitudes, that pasture is available during the entire year and shelter is rarely needed, except for high-class breeding and show animals. It is said that wonderful fatness and bloom are obtained by the cattle on the grazing-