

charts, one to represent the rainfall in inches for a period of years; the other to represent the yield of corn in the great corn growing states for that period. The two charts fitted together like a dove-tail joint. American corn growers had been lectured, bulletinized, entertained at corn shows, taken to agricultural colleges and had the agricultural colleges taken to them in an effort to show them how to conserve moisture in dry seasons, but all the difference it made did not show in the chart.

The same may be said of Canada. A difference may be noticed in a few specialized lines. O.A.C. No. 21 barley has made a noticeable increase in the barley production of Ontario. Marquis wheat may do the same for Western Canada, but for the most part general farming in this country is carried on but little better than it was thirty years ago.

Herein, then, lies the hope of those of us who would become prosperous in the farming business. The apathy of the many provides us with our opportunity. If the teachings of the agricultural authorities were to be suddenly put in practice by all of us it would precipitate a crisis that would make every previous financial panic look like the failure of a corner grocer.

A few of us may put these teachings in operation without upsetting the balance, but just as soon as a few thousand do so the market will tumble about our ears. A few years ago Maine State potato growers got potato growing down to such a science that they had to sell out at eleven cents a bushel. For years Alberta farmers were urged to take up hog raising on a large scale. A year ago they took the advice, with the result that last fall hogs were taken out into the scrub and shot because they were not worth enough at the abattoirs to pay for their own freight. These are exceptional cases. They point out a danger but for the most part we, as well as the professor of agriculture, may rest assured that the teachings of the authorities will not be put in operation suddenly by any large percentage of the people.

Those of us who make our fields yield us more than the average for the country, or for the continent, will be benefited accordingly—if the increased yields do not cost us too much. The price in any market is set by the average yields for the farming industry within the reach of that market. By keeping our production up to the maximum level for profits, a level which is nearly always higher than the average rate of production, our profits will be greater than those of the men who only produce at the average rate. While doing this, however, we should endeavor to work together in every possible way with our fellow-farmers to shake off the shackles which other classes in the community have fastened upon us and through economic and other reforms endeavor to gain back some of the freedom which we have lost through our failure to cooperate in the past.

### Alfalfa at Fort Vermilion

IN a recent issue of the Agricultural Gazette, Dr. M. O. Malte, Dominion Agrostologist, advances the claim that hardness in plants is a characteristic which is passed on to succeeding generations of plants. Using alfalfa as an illustration, Dr. Malte points out that in their work they have found that "seed secured from surviving individuals produces plants which also survive."

"The significance of this is of the utmost importance," writes Dr. Malte. "It means that surviving individuals represent hardy types or hardy strains. The fact that hardness is an hereditary character opens almost unlimited possibilities for alfalfa in Canada. It simply means that, by elimination of all tender types and, as a consequence, by the saving and propagation of hardy types only, the problem of a successful

evasion of winter-killing has been practically solved.

"Results obtained by the Experimental Farms fully confirm this statement. As an illustration may be cited the experiments with alfalfa growing at Fort Vermilion, in the Peace River District.

"For years, alfalfa has been tried at this station. For years only discouraging results have been recorded, inasmuch as all 'varieties' have been badly winter-killed. In 1913, when,



A Veteran Cradler.

the importance of the hereditary nature of hardness began to be fully recognized, the Fort Vermilion station was supplied with seed gathered from a few plants which had proven able to withstand severe winters. This seed has produced a crop which shows no perceptible signs of winter-killing.

"There is no doubt that the ultimate success at Fort Vermilion is due to the use of seed originated from hardy types. A lengthy discussion to prove this conclusively is out of the question in this article. Suffice it to say that the Fort Vermilion experience is by no means an isolated



Another Method Now a Memory.

one. Numerous results have been recorded which all tend to show that the ability of alfalfa to withstand severe winters can be most extraordinarily increased by the use of seed from hardy types or, which means the same, from hardy strains only.

"This means, to the farmer, that a safe way of making alfalfa growing a success is to utilize seed produced at home. By saving and using home-grown seed every farmer has it in his own hand to secure an alfalfa which is perfectly acclimatized to the conditions of his locality and which therefore can be expected to yield the very best returns."

### Seeding Alfalfa in Corn

A TWO-YEAR rotation with corn and clover has been followed successfully on several Canadian farms. When R. E. Gunn was running his big dairy farm at Beaverton, he followed the practice of seeding red clover in the corn after the last cultivation, plowing under the clover growth the following spring and then harrow the land in corn again, reply a one-year rotation. The more common plan, however, is to clover one year and then back to corn. Can the same plan be followed with alfalfa? Farm and Dairy would like to see some of our Canadian dairy farmers give the method a trial. Such a method of seeding to alfalfa has already been followed in the United States, and Mr. C. F. Doane speaks interestingly of his experience in an Ohio farm. Here is the story as he tells it in Hoard's Dairyman:

"The plan we first adopted has not yet been changed though we are studying the situation every year. The corn is planted thinner than our usual custom, only two kernels to the hill in both ways. When the corn is large enough to cultivate it is given a number of cultivations in a comparatively short time. The seed is given broadcast when the corn is as high as it can be safely worked over with an old fashioned Breeds weeder, which is like a hay rake without wheels and twice the customary number of teeth. This weeder is used for covering the seed and is run crosswise of the last cultivation. In our latitude this allows us to seed about the middle of July. The seed comes up quickly in the well tilled ground and we get a very good stand. At the present time we seed about five pounds to the acre as we get a thick enough stand with this amount of seed and believe that any greater quantity is seed and money wasted."

### Alfalfa Knee Deep in Corn

"From the time of seeding the plants sprout very fast as they would under any other condition of seeding. I have seen the alfalfa corn stand knee high, and the second mowing get a good start before the frost stopped in the winter. It went into winter in perfect condition. The past season nearly forty acres were seeded in this manner, the stand perfect, and the prospects for the next year's crop never looked better when the winter set in. There is no wonder why this method of seeding alfalfa has never been called into question. Some people who should have known better have thought the corn exhausted the moisture of the soil so rapidly that the young alfalfa plants would not have a good chance. While the corn plants doubtfully draw heavily on the supply of moisture in the soil, the fact that it is a cultivated crop and that the plants partially shade the ground from both sun and air currents apparently give the right conditions. In the Dakotas a crop of alfalfa is viewed as a moisture conserver, and farmers believe that they get practically as good results in the next year's wheat crop by growing a crop of corn as by following the land in summer."

Mr. Doane does not claim that they will meet with difficulties in following this plan. In fact, however, the plan has been an unequal success. Who will be the first to give the matter a trial in Canada?

Do not let red clover go to waste. Red clover fields, not pastured after having been cut off hay, often produce a considerable quantity of splendid and well-matured seed. Instead of letting this seed go to waste—save it. Even should the quantity be small. The seed presents a clover which is acclimatized, that is, well adapted to the local conditions, and for this reason far superior to, and much more profitable than, seed of unknown source bought from a seedsman.—M. O. Malte, Dominion Agrostologist.



When college days always begin in a similar way on the premises he went the place to accomplish the rest of college. He had of about 15 dairy cows all uniformly marked. He remembered that his equal number of every mixture of every kind took me over to the new equipment with the help of his days. The milkhouse to see next, was, he very first improvement had all of the usual up-to-date dairy and had a little four-bester.

That tester attracted the first that farm dairy for some among dairy farmers. I have found my milk from industry very few who keep their production. This serious mistake, and matter about right. That tester is just a milk scales you say. I present I am ship these factory and guess the hundred pounds may think I'm well, but the truth believe that the no



holders system. proving weight changed a bunch didn't get in a year carded. The my mind a two pure. One of them a year, while her of milk. The own first cow. I suggest a test of the milk showed cow No. per cent butter fat. I decided to try about the aid of my. I decided his best. I am convinced that every year Babcock test. I general idea that a Babcock and difficult to matches me that anyone's pains can operate accurate results.