Alfalfa in Central Alberta

EDITOR FARMER'S ADVOCATE :

Many of your readers may be interested to know with what success alfalfa has been grown in Central Alberta. In 1907 a block of alfalfa was seeded on the experimental farm at Lacombe. The land on which it was sown had been under grain crops for a number of years without rest or fertilizers. The season previous it had been under oats and was fall plowed. It was cultivated in the spring of 1907 with discs and drag harrows until June. By this means a number of crops of weeds were destroyed before the alfalfa seed was sown, and moisture was conserved so that there was no lack of moisture to effect prompt germination of the alfalfa seed. The seed was sown with the grass seed attachment commonly available with the ordinary grain drills, seeding being at the rate of about 15 pounds per acre. The variety used was the common alfalfa. Immediately after the sowing a part of the land was inoculated by means of soil from an alfalfa field where the alfalfa had been established for a considerable period. As growth progressed during the season the alfalfa was clipped back with a mower, the cutting bar of which was kept tilted high. It is a fact that with each clipping of the young plant the crown increases in size, thus a plant which has been clipped two or three times during the season is in a much better condition to go through the winter successfully than a plant which has not been so clipped.

In 1908 two cuttings were made from both the uninoculated areas of alfalfa. The inoculated area yielded at the rate of 7,200 pounds of cured hay from the two cuttings, while the uninoculated yielded only at the rate of 2,520 pounds per acre. The difference in the alfalfa is not wholly represented by the figures given. The difference in the color of the crop growing on the areas was as marked in shade as was the difference in yield in pounds. The crop growing on the inoculated land was a rich dark color, while that on the other was pale and sickly. Chemical analyses showed that the hay produced from the inoculated area contained more than 2 per cent. more protein than the hay produced on the uninoculated area. Further the inoculated alfalfa came through the hard spring of 1909 without great loss, while the uninoculated alfalfa was completely killed out.

In speaking of the hardiness of the different strains of alfalfa, the night frosts and sunny days of the spring of 1909 demonstrated that there is a great difference in the power of different strains of alfalfa to withstand trying conditions. Two areas were sown side by side in the spring of 1908, the common alfalfa being in one block and the Turkestan strain in another. Both were given similar treatment. The Turkestan came through, while the common alfalfa was entirely killed.

It is important in securing seed of alfalfa that the hardier varieties be purchased, and that in sowing it that some method of inoculation be used. The crop is of such importance that we advise every man who is interested in maintaining the fertility of his land and in growing live stock, to try a small block of alfalfa. By beginning with an acre and thoroughly inoculating that acre he can in two years, if successful, from that acre as a beginning, inoculate his entire farm if desired.

Speaking of the comparative feeding value of [illegible] the figures given by Prof. Henry of [illegible] says: "If upland prairie hay has a feeding value of $3.00 per ton on the basis of its ability to produce milk or meat, then timothy hay would have a feeding value for the same purpose of $2.48, while alfalfa hay would be worth $9.08." He further makes a claim that "5 tons of well cured alfalfa hay is equal in feeding value to 4 tons of bran." When we consider the market price of bran, and the fact that we can produce in Central Alberta from 3 to 5 tons alfalfa hay per acre the enormous stock carrying capacity of one-quarter section of land is brought into strong relief. Any land on which alfalfa can be grown successfully is upon the same basis as the corn producing states, as far as its ability to carry stock is concerned. It is evident therefore that if in the central part of our province alfalfa can be successfully grown the land is bound to appreciate very rapidly in value.

A bulletin recently issued by the department of agriculture at Washington states that wherever alfalfa has been generally introduced into any state that within three years the price of the land has doubled. With the rapid rush of settlers and the annual restriction of the range consequent thereon, it is of utmost importance that a fodder crop be grown. If, therefore, every effort is made now to introduce alfalfa we will have overcome the obstacles in the way by the time fodder from this source is most needed.

To experience difficulty in the growing of alfalfa in the beginning is not new, for in many states where alfalfa is now recognized as a safe crop, there were many discouraging years before it became established. Our land is new, and bacteria if not present must be introduced. The more our land becomes filled with bacteria, the better will the alfalfa flourish.

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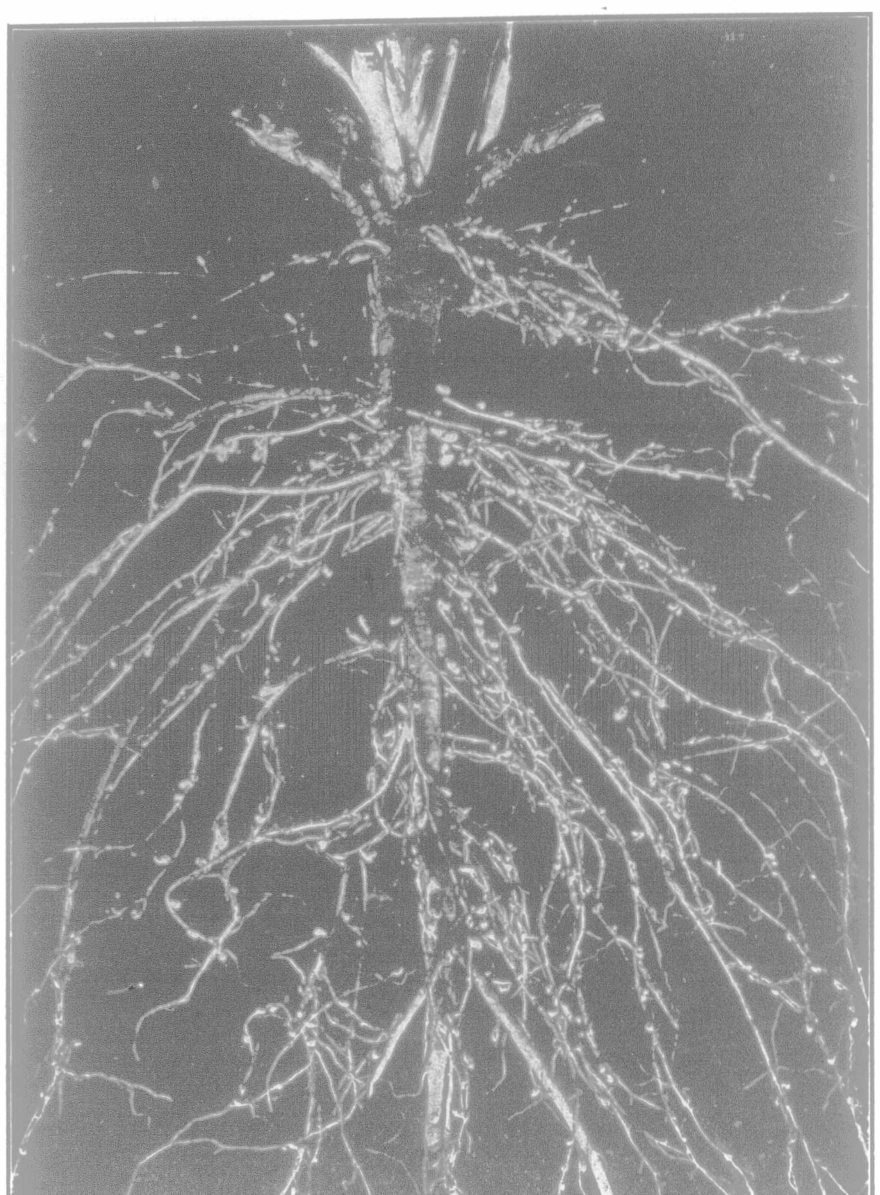
Every time a boy leaves the farm it is an impetus to the increased cost of living. A scarcity of farm labor makes wages higher and adds to the cost of food products.



TYPICAL CLOVER ROOT

Note the tiny sacks or nodules containing desirable bacteria

Another Concrete Mixer

In our issue of January 26 description was given of a simple and easily made concrete mixer, designed to facilitate and reduce the labor involved in mixing concrete in farm concrete construction. In a bulletin recently issued by the Colorado Experiment Station a home-made concrete mixer is described, which can be made by any ingenious farmer with little expense and work. It is intended to be driven by a gasoline engine, but any kind of power may be used or the machine turned by hand. The description is as follows :

Two pieces of 4 by 6 form the sills. Upon these two uprights about 3 feet high are fastened. A 1½-inch pipe passes through holes bored in the top of the uprights. Upon this pipe the mixing box is turned, and through the pipe the water is added to the mixture at the desired time. The water is poured in at the top of the upright pipe and flows down and out through holes which are drilled in the lower side of it. The other end of the pipe is closed by a wooden plug. The ends of the box are made of pieces of 2 by 8 bolted together. A hole bored in the center of each end forms the bearings. The sides of the box are made of 1-inch lumber and are simply nailed to the ends with 12d. nails. One-half of the box is made so that it can be detached and lifted off when the mixer is to be filled or emptied. The detachable half is secured to the other half by means of strong hooks so placed that by slipping this half about an inch to one side all of the hooks are loosened at once. After it is in position the removable portion is held in place by means of a barn-door latch.

The driving gear is simple but very effective. It consists of the rim taken from the wheel of an old "rubber-tire buggy." With the tire removed, the grooved rim makes a very satisfactory wheel upon which to run a three-fourths-inch rope belt. The belt is driven by a small sheave pulley which is fastened to the countershaft. A belt tightener is used upon the rope, and by using a very loose belt the tightener is made to act as a friction clutch.

This particular mixer is driven by a 2-horse gasoline engine, which is belted to the counter-shaft. The engine runs continuously and the mixer is started and stopped by means of the belt tightener.

The operator first fills the mixer about half full of sand, gravel, and cement in the correct proportions. He next lowers the lid, which until this time has remained supported upon the hook. The lid is now pushed into place and the latch fastened. The supporting hook is next removed from the staple in the lid and hooked into a staple in the lid support. The machine is now ready to start, the clutch is thrown in, and the box revolves upon the pipe. When three or four turns have been made, water is poured into the upright pipe until the desired amount has been added. By this time the concrete is thoroughly mixed. The clutch is loosened, the box stops revolving, the hoisting hook is hooked in the staple of the lid, the latch is loosened, and the lid raised to the top of the lid support by means of a counterweight and rope. Now, by slightly setting the clutch, the contents of the mixer are dumped into the box beneath. The operator of the machine may now refill the mixer, while the other workmen take care of the mixed material. In this way a large amount of material may be run through the machine and perfect mixing is guaranteed.

Many other systems of driving might have been used in place of the rope belt. The main gear of an old self-binder makes an excellent gear for a mixer. An old mower gear may also be put to good use in this connection.

It is not necessary to have the mixer driven by an engine or horse power. A crank may be attached and the machine turned by hand. Many prefer turning such a machine rather than mix the concrete with a shovel.