

Seasonable Pointers For Farmers

HUBAM CLOVER HAS WON IMPORTANT PLACE AMONG GREATEST SOIL-RENEWING DISCOVERIES OF TODAY

Rapid Growth and Early Development of Seed in One Season Seem Almost Incredible.

Hubam clover is a discovery of Professor H. D. Hughes of the Iowa State College, and is not to be confused with the common or biennial sweet clover. The plant originated in Alabama, and with most careful experiments and years of study, Professor Hughes has brought to us a plant of amazing possibilities.

This comparatively new discovery has received very favorable comment in many of the best agricultural journals, and indeed worthily so, for we have in this new-found clover, a plant which, alone for its extraordinary nitrogen-producing qualities, holds a foremost place of importance among the great soil-renewing chemical discoveries of the age.

The rapid growth and the early development of the seed in one season seem almost incredible. This clover grows to a height varying from 4½ to 6½ feet, and heavily seeded.

Its cultivation does not require a great deal of attention or labor. It may be sown early in spring, on land which has been worked in the fall, and, as it brings to the ground its own fertilizing properties, flourishes even on poorly-prepared seedbeds. Its drought-resistant qualities are remarkable, growing and maturing seed, where other vegetation has perished.

Clover is universally being recognized as one of the most nutritious of fodders, and many of our Canadian farmers claim that, aside from the seed crop it would be profitable to sow this Hubam clover for pasturage and soil-renewing purposes.

Hubam clover was first introduced in Huron County in 1919. It was purely an experiment at that time, as our seasons are short compared to the states where the plant originates. One pound of the Hubam annual sweet clover, which at that time cost \$17.50 per pound, was sown, yielding a crop of sufficient fully matured seed to sow fifteen acres the following spring, thus producing an actual seed, more adaptable to our northern climate.

The accompanying cut shows the clover at work in the harvesting of a crop of the annual clover, which was sown on April 7, 1921, and harvested September 21, 1921, on the farm of Murray Gibson of Brucefield, Ont., a successful grower of Hubam clover, and it is interesting to note the height and leanness of this crop estimated at 19 bushels to the acre.

While annual sweet clover is, as yet, known only to a comparatively small number, we are convinced that in a very short time, Hubam clover will be unsurpassed and regarded as one of the most profitable of crops, which will revolutionize farming and beekeeping.

SICK CHICKENS OF LITTLE VALUE

Hatchet Safest and Most Effective Method of Treating Weaklings.

Very great doubt exists as to the advisability of "doctoring" sick chickens. The unit of production (the individual bird), is so small that if a man's time is worth anything it will not pay him unless he considers the bird especially valuable. The "cured" bird will always remain a menace to the flock, and with the slightest adverse conditions will show a return of the disease. Disease of any kind usually weakens the constitution of the individual and hence lowers its breeding value. In such simple cases as indigestion, colds, etc., where the greater part of the flock is affected and the flock can be treated as a unit, treatment is, no doubt, advisable. Where the birds are kept for the production of eggs and meat only, the hatchet will be found the safest and most effective method of treatment for individuals.

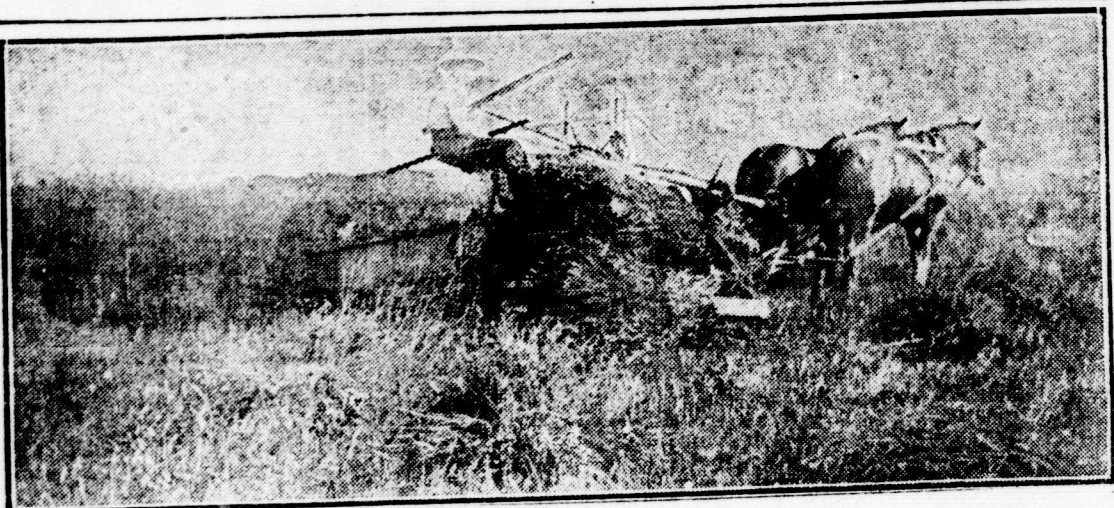
Prevention is better than cure, and every effort on the part of the poultry keeper should be exerted to maintain such environment and sanitary conditions as to prevent disease gaining a foothold in the flock.

The stock, which is used for breeding purposes, should be selected first for constitutional vigor, as this is the foundation on which the breeder must build future success. Discard all birds which have at any time been sick, and cull very closely birds, which as chicks, were raised in closely confined quarters.

Housing important. The housing of the birds is very important in the prevention of disease. Abundance of fresh air and sunlight in the house, without drafts or dampness, will do much in maintaining a healthy flock. Houses must be kept sanitary by frequent removal of droppings and litter, as the latter becomes soiled. At least once during the year, preferably in the fall, the house should be thoroughly cleaned and disinfected. All movable fittings, as nests, hoppers and roosts may be removed from pen to facilitate cleaning. Thoroughly scrape droppings boards, if used, remove all litter from floor, and then brush down ceiling and walls with a broom.

It has been found that the most economical to combine the whitewashing and disinfecting processes by adding the disinfectant to the whitewash. The whitewash is made by slacking fresh stone lime and adding sufficient water to make a creamy mixture. To this is added ten to fifteen per cent of crude carbolic acid or some of the tarry compounds used for disinfecting purposes, and the whole applied with a hand spray pump. Applying with a whitewash brush is not to be recommended, as there is not sufficient penetration.

Nests, roosts and other movable fittings are best treated by dipping in solution of the wash, or may be sprayed, but the dipping is to be preferred. Be sure to strain all whitewash before using the spray pump.



The above picture represents Mr. Murray Gibson of Brucefield in his sweet clover field, the abundant yield of which can be readily seen.

FARMERS' DAIRY PLANT SUCCESSFUL IN STATES

Minnesota and Wisconsin Producers Find That Co-operation Pays.

Canadian stock breeders are exhibiting some members of their fine dairy herds at the National Dairy Show of the United States, which has been held at the Minnesota State fair grounds, located in the Twin Cities, from Oct. 8 to 15. This exhibition was formerly held in Chicago, but due to the fact that Minnesota has gained the supremacy as a dairy state, it claims the honor this year.

The average production of a dairy cow in the United States is less than 4,000 pounds of milk a year, but that of the Minnesota cow is 4,300 pounds, and one of the super pure-bred Minnesota queens of the dairy—a \$10,000 beauty—has a test yielding more than 3,700 pounds of milk in 205 days. Not only is the Minnesota farmer securing a large yield of milk, but he is also receiving 21.3 per cent of the dairy dollar. This has been accomplished by co-operative dairymaking.

There was a time in the history of the state when the pioneer Minnesota farmers looked with longing eyes on the great field of market milk out in Chicago, and the large eastern cities. When this state began to produce a surplus of milk it had no great population centers to consume the quantities of such perishable product. Attention had to be given to the production of a dairy product that could be shipped like butter or cheese. The dairy pioneers decided on butter, as Wisconsin had established a Swiss cheese-making industry. Swiss emigrants had applied their knowledge of co-operation in that state, and showed what progress could be made. Many of the early settlers of Minnesota were Danes, who are known as the best dairymen and butter-makers in the world. Also they are noted as the best agricultural co-operators, and the Wisconsin dairy co-operative dairy plants is a direct outgrowth of Danish co-operative ideas, which have made that country the leader in Europe.

First Co-operative Plant. In 1890 the first co-operative plant was established in the State of Minnesota by a few Danish farmers, and one factor must be noted, as it forms the very corner stone of the state, and has stood the test of years—that each member or stockholder has only one vote, no matter what the amount of his interest or stock. This has prevented any individual or faction from obtaining undue control, and has insured true co-operation. Then the profits, after deducting the cost of manufacture, are distributed among the patrons.

For years this co-operative plant was the model whose committees were sent to see what could be accomplished by farmers conducting their business affairs for themselves, instead of allowing others to do it for them, and dictating to them the price they are to receive for their dairy products. The example set by that particular community has been worth millions of dollars to Minnesota's dairy co-ops.

Through the co-operative dairy co-

Miss Neely and Her Little Lamb



MISS CELIA NEELY is the only lady in Ontario who is secretary-treasurer of a fair association, and to her is due a large measure of the success which has attended the Whitewash Fair for the past few years. This year the fair was the biggest in its 67 years of history, and the complete arrangements made by Miss Neely had much to do with the speed and promptness with which the various events were carried through.

Miss Neely is herself a practical agriculturist, and a successful breeder of Dorset sheep. She captured all the prizes for this breed at this year's fair. Her portrait represents Miss Neely holding in her arms a pet lamb which was presented to her from a Christmas tree last year. This animal is now rather too large to be favored in this manner, but it has the distinction of being a prize-winner at this year's show.

pany, markets have been found in the distant cities of New York, Boston and Philadelphia, and these are willing to pay fancy premium prices for high quality products. It is a quality product that naturally seeks the highest market. Even the home markets of the Twin Cities and Duluth have difficulty in securing the products, as there is such a demand in the larger markets.

Golden Returns. Out of a total production of 140,000,000 pounds of Minnesota's golden butter in 1920, which sold for \$75,622,507.36, exactly \$7,622,507.36, or 10 per cent, was the golden return in real dollars paid to the farmer who wrung it from the soil and harvested it in the milk pail high over his head.

Golden return is not due to the fact that the men who pay out the money are philanthropists, but to the fact that the farmer himself in Minnesota is the real owner of most of the creameries. He has a practical control over both the manufacturing and the marketing of his product, and eliminates the middlemen all along the line, from his own farm clear through to the consumer. His system is so organized, too, that he has the other important factors of profit to help him, besides the high return for the raw material. One factor is the value lies in the fact that it furnishes data for improving the stocks by indicating which animals should be weeded out. The last line of the bulletin in which Dr. Babcock announced the discovery of his method read: "The benefits of his researches and his invention would have assured, he gained fame and fortune in the dairy world."

Dr. Babcock was made professor of agriculture at the University of Wisconsin in July, 1915, after being chemist at the institution since 1887. He has devoted himself entirely to laboratory work, studying the various relations of dairy products and agriculture. Since the time that Minnesota and Wisconsin introduced co-operative dairy plants, large checks have arrived each month for the farmer, while there is scarcely a farm in either state that has one dollar mortgage. All through that extensive area we find immense barns, huge silos, fine residences and happy people who attribute their success to the co-operative dairy plant.

Ontario's Opportunities. In Ontario we have immense areas that are as well adapted to dairymaking as any state in the union. Although in many parts of our province this industry is carried on at present, the farmer is not receiving the profits he should or could with a co-operative dairy plant in operation in his district.

The Thorndale Co-operative Dairy Company, which was organized a few months ago by enterprising dairymen of the district, is the first established in Canada according to the principles of those in the States of Wisconsin and Minnesota, which have proved such a huge success.

The Thorndale Co-operative Dairy Company purpose erecting a dairy plant in the near future. The capital stock of the company is \$10,000, and building operations will begin when \$15,000 worth of stock has been sold. The farmers of the district are very enthusiastic in the enterprise, and with very few exceptions all the directors have been interviewed by the company, and have readily subscribed for stock. Dairymen in the adjoining townships have also expressed a desire to secure stock.

The establishment of a co-operative dairy company at Thorndale is also intended to enhance the value of property in West Nisour Township, as farmers are eager to secure farms where there are such excellent facilities for the disposal of dairy products.

Royal Agricultural Show Makes Its Bow in Toronto

The Royal Agricultural Winter Fair of Canada makes its bow this year. For upwards of half a century winter fairs have been held at various points in the Dominion, both east and west, one of the best known and the most successful being that held at Guelph. These fairs bring to the public a means of showing what the province can do in the breeding and feeding of live stock and in encouraging stock raisers to greater efforts. But it was felt that the time had come for something really big, something really international in its character.

With this in view, a committee of representative livestock men met in November, 1917, and at a meeting in October, 1919, an offer was received from the city of Toronto to erect an arena with adequate accommodation and subject to certain financial repayments. This offer was accepted. The Royal Agricultural Winter Fair Association was then duly incorporated and financial support was secured from the Federal and Ontario Governments.

In making its initial bow the organization says:

"Agriculture must remain as the foundation industry in this country, and live stock is the foundation of good agriculture. Through the trying times of transition the industry must pass to permanence and prosperity and the

co-operations, as well as for social activities. At Moland, a little town off the railroad, nine miles from Kenyon, Minn., in the heart of the dairy country, the co-operative dairy company recently erected a combined co-operative dairy plant, community hall and manager's eight-room modern home upstairs.

Wisconsin Prosperity. Wisconsin, which is also one of the leading dairy states of the world, has at present 3,000 co-operative plants which are receiving milk and manufacturing it either into butter, cheese, or condensed milk, or selling it for direct consumption. These institutions are the corner-stone of the dairy manufacturing industry, and their strength lies in the interest of prosperity, there is every indication of prosperity. There are at present 176,156 dairy farmers in the State of Wisconsin, and on these farms have been erected huge barns and silos, and there is every indication of prosperity.

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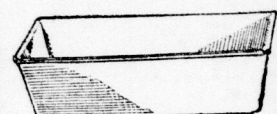
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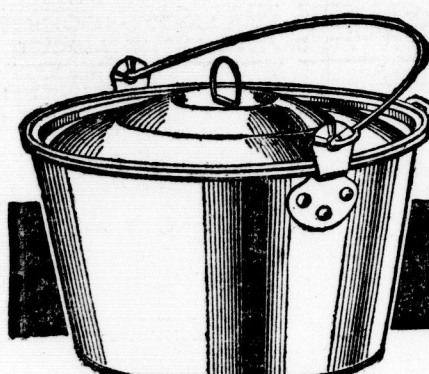
Sale of "Wear-Ever" Aluminum Continues Next Week

An excellent opportunity to complete your aluminum kitchen outfit—not one, but six specials—some marked at less than half the regular price in this sale. The six different utensils are pictured here today. Clip out the ones you want and get the identical piece or pieces while this sale is on. This is a factory sale and these prices cannot be continued after next week—an opportunity that will not come again this year. It is the factory's way of spending money to advertise the superior quality of "Wear-Ever" in comparison with other makes of aluminum utensils. Take advantage of it—this is the way to make your collection.

"Wear-Ever"



SEAMLESS BREAD PAN..... 69c
If mailed, 10c extra.



\$2.49

6-QUART (Wine measure)

"Wear-Ever" WINDSOR KETTLE

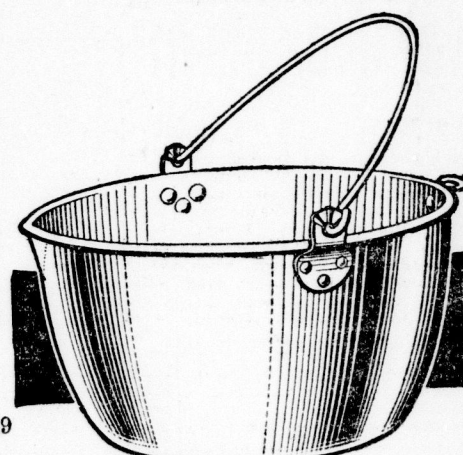
with new style cover. Sale \$2.49. If mailed, 20c extra.

\$2.49

10-QUART (Wine measure)

"Wear-Ever" PRESERVING KETTLE

Sale \$2.49. If mailed, 20c extra.



TRY A SAMPLE CUP OF OUR SPECIAL

S. & I. BLEND COFFEE

at Demonstration Counter, Main Floor. The quality as served in our Restaurant and at Soda Fountain.

"WEAR-EVER"

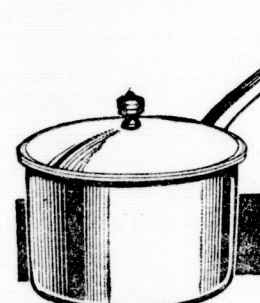
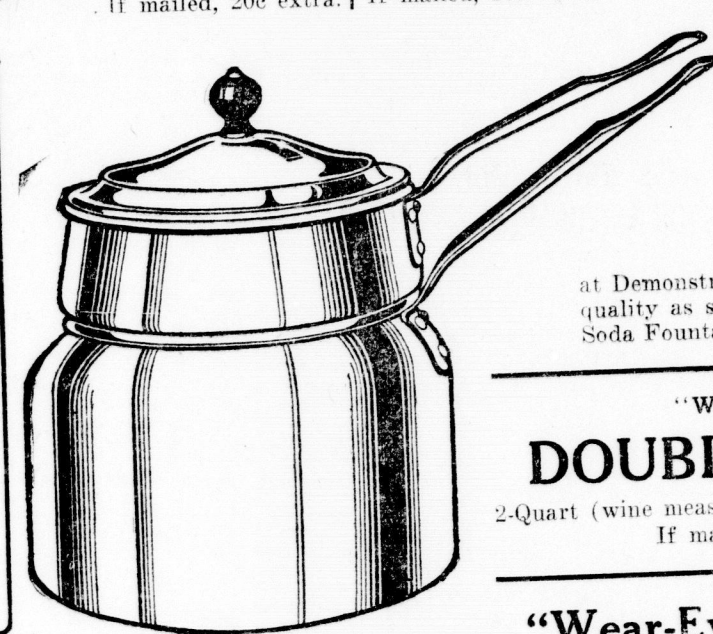
DOUBLE BOILER

2-Quart (wine measure). Sale \$2.49. If mailed, 15c extra.

Next Week Only

Get Yours Early

SEE WINDOW.



"Wear-Ever" SAUCE POT

\$1.89

If mailed, 15c extra.

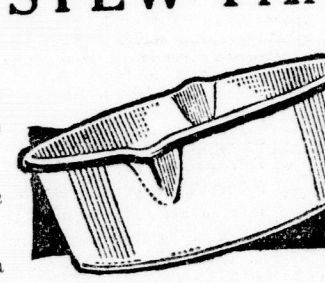
39c

1-Quart (wine measure).

If mailed, 10c extra.

Cover 14c extra

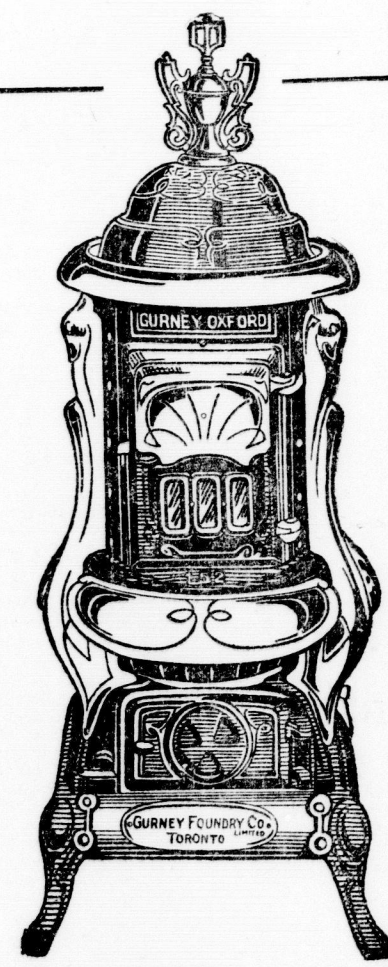
"Wear-Ever" STEW PAN



GURNEY Baseburners, Ranges and Heaters

AT NEW LOWER PRICES.

In some cases the prices are but half of one year ago.



Gurney Large Fireside Baseburner, with or without oven... \$35.00

Gurney Oak Heaters, in three sizes, with feeders. Special prices... \$18.00, \$22.00 and \$32.00

Gurney Quebec Heaters, in four sizes, \$15, \$17, \$21.50, \$24.50

Gurney Regent Coal Range... \$35.00 and \$37.00

Gurney Prince Coal or Wood Range, with and without reservoir... \$50.00 and \$55.00

Gurney Glenwood Iron Range—Without reservoir, \$54.50; with reservoir, \$65.00.

Stove Pipes, 6 or 7 inch... 25c

Elbows, 6 or 7 inch... 35c

Half Lengths, each... 20c

Taper Pipe... 40c

Basement.

NOW IN STOCK HORROCKSES DIAPHRAGM FOR LINGERIE, 75c Yard.

SMALLMAN & INGRAM LIMITED

JUST RECEIVED New Shipment Tarantula, for Dainty Lingerie, 80c, 90c, \$1.00 yard.

which seem to indicate that the treatment was ineffective against scab. Instances have been reported where treated seed planted on virgin soil showed 50 per cent scab in the crop produced. It was difficult to explain such results at first, but facts which are now at hand throw light on the situation.

"Potato scab is caused by a definite organism that lives as a parasite on the tubers," says R. C. Rose of University Farm, "and recent investigations have indicated that it occurs on some soils naturally, even though potatoes have never been grown on them. The scab organism grows rapidly under alkaline or neutral conditions, but is repressed by slight acidity. In other words, a limestone soil favors the scab

organism in much the same way as it favors nodules bacteria of our legumes, and in such soils the scab organism is apt to occur naturally.

"To control scab on some of the naturally infected soils is, of course, a problem. Various methods have been used with some success to change certain soils from an alkaline to acid reaction. Sulphur, certain fertilizers and green manures have all given promising results in recent trials, but the benefits depend on how much lime the soil contains.

"On the other hand, this organism does not occur naturally in acid soils and when it is found it generally has been introduced with the seed. The testing of the soil for acidity will in-

dictate to a certain extent what success might be expected in treating potato seed for scab. Directions for making soil tests can be obtained from the county agent or by writing to University Farm, St. Paul. Although seed treatment may not give the best results in controlling scab in certain localities, it should not be discontinued as it is very important in controlling this pest which sometimes reduces the stand and yield of the crop materially."

SEED DISTRIBUTION The annual free distribution of samples of seed grain will be conducted as usual at the Central Experimental Farm, Ottawa, by the Dominion cereal list. The following kinds of seed grain will be sent out this season: Spring wheat (in about 5-lb. samples); white oats (about 4-lb.); barley (about 5-lb.); field peas (about 5-lb.); field beans (about 2-lb.); flax (about 2-lb.). Only one sample can be sent to each applicant. Applications must be on printed forms, which may be obtained by writing to the Dominion Cereal list, Experimental Farm, Ottawa. As the stock of seed is limited, farmers are advised to apply early to avoid disappointment. Those who applied too late last season are particularly requested to send in their names at once so that application forms will be forwarded to them. No application forms will be furnished after Feb. 1, 1922. C. E. Saunders, Dominion Cereal list.

POTATO SCAB AS AFFECTED BY SOIL

Treating potato seed with corrosive sublimate for the control of scab and rhizoctonia has been practiced for some time in leading potato growing sections. Occasionally there have been reports