

## Farm Department

### YOUR FLAX FOR SEED AND OIL

#### HARVESTING AND STORING THE CROP FOR SEED AND OIL PURPOSES

By H. L. Bolley

With the flax crop, as with other small grain crops, commonly too slight attention is paid to properly saving the seed. It has been said to be a "heavy feeder," "hard on lands," "a weed producer," "a poor pay crop," etc. Slight though and a review of late investigations and of market statistics, may readily cause one to feel sure that such terms are but assertions of slight foundation in fact. It has, at times, failed to be a pay crop because of specific flax diseases. It has often proven to be hard on the land because of the weeds which followed, but this is not necessary feature and is not more characteristic of this seed crop than of wheat, oats or other small grain crops. Such defects, in so far as they effect the yielding capacity of the land, rest in the methods of handling the crop from the seed time to its final storage and preparation for use as seed or flaxseed oil. The bad or injurious conditions may largely be overcome by proper saving of the crop, especially the portion to be used for sowing purposes. Yields may be increased, oil quality can be improved and weeds eliminated. Diseases can largely be controlled. The diseases mentioned here are those which are particularly characteristic of flax and do not concern or effect other crops.

#### Preparing the Seed Field For Harvest

Having properly prepared the seed bed and selected and treated the best available (See circular 8, N. D. Experiment Station), the next step is to insure a proper harvest of the seed. July is the time to insure against harvesting a lot of weed seeds. There are weeds which produce seeds which are of such peculiar shape that they

are difficult to get out of flax seed with ordinary screens or methods of grading and cleaning. Pull the weeds which produce seeds of a form difficult to remove by means of a fanning mill while they are in blossom. Clean up the flax seed. If you have not prepared or left paths through your field by blocking certain pockets in the drill, when the seed was sowed, lay out lines by flagged stakes in the direction of the drill rows. Pull by these flag stakes straight through the field, reaching right and left as you walk along through the drill rows. Only a day or two of work is necessary to remove the weeds from an area of crop sufficient to furnish seed for the home farm and a little more work will clean up the entire area from which seeds are to be sold.

In large fields, lines of stakes to pull by are essential. Walk straight down a drill row between two rows of flax from end to end of the field, reaching only so far as the arms will allow on either side.

Do not sell weed seeds and disease infected flax; for both the weeds and the diseases will come back to your land by way of the wind, shifting dirt, water, stock, farm tools, etc.

#### Control of Root and Seed Diseases of Flax

The reason flax dies off, leaving bare or weedy areas in the field, is not due to lost fertility or injury to the soil caused by the flax itself, but chiefly because flax diseases have once been sown there through seed and by other means, as indicated. When the root diseases of flax are introduced into the soil the fungi multiply and spread from areato area chiefly because of the infected stubble which is worked into the land. If flax is to be grown there before the flax fungi have been cultivated out, one must get the resistant sorts of flax.

#### How To Avoid Disease Infection Seed

The way to avoid seed infection is to cut the crop as soon as the seed bolls are mature enough to shell. Do not allow the crop to stand and weather after the straw is dead. This process allows many spores of the wilt and other stem and root destroying

fungi to develop. Cut only when dry. If the straw is long enough, bind in bundles so that the heads may be kept off from the wet or damp ground, shock in open shocks for air drying. If a machine is not available, as soon as thoroughly dry, stack enough for seed purposes in small stacks on acre stools. One can put an acre of flax crop into a small stack without climbing onto the stack and can do all of the work in about a half hour. Select a rather high, dry, well drained place. Build a round shock by standing bundles on end until a space of about eight feet in diameter is covered. Fill the center as in ordinary stacking. Top out. Cover with a canvas cover or a cap of dry hay. Thresh at the first opportunity. Be sure to thresh the seed which you intend to use for sowing purposes in the dry portion of the day. A damp, foggy day, or damp straw is sure to allow a lot of spores of the wilt and root fungi to stick on the flax seed. When the flax is cut in loose bunches and left on the ground, those bolls lying on the ground absorb a lot of moisture, producing soft conditions suitable for rapid development of the root fungi. Wherever these bunches lie, the ground is sure to be thoroughly infected with disease. When seed is threshed from such mouldy bunches, there is apt to be a great number of wilt spores dusted over the properly dried seed.

#### Storage

Store the seed dry in a dry, cool place where it will not be allowed to gather steam or other moisture—never over live stock.

These rules for purifying the seed field, harvesting, threshing and saving the seed, apply with like force as to beneficial efforts to each of the small grain crops. The chief reason the flax diseases are more destructive on flax than wheat diseases on wheat, etc., rests in the fact that flax has only one central tap root. When this wilts off, a bare spot is left. In the case of the grass-like plants, oats and wheat, if certain roots are blighted by disease, new roots form and the crop holds the ground, but the yield is reduced. The injury, of course, is caused by specific diseases for those crops, and not by flax diseases. The seed of the flax seed softens up and readily under conditions of moisture, catches on holds any spores that may be on the straw at threshing time. To this extent the fungi become more destructive and make seed curing under dry conditions, seed breeding and seed

treatment absolutely essential to this crop.

**Harvesting The General Flax Crop**  
All that has been said applies, with equal force to the general flax crop. Similar processes should be followed as closely as possible.

The seed as it goes on to the market for oil purposes should be of as even quality as possible. It pays to leave weed seeds at home. Avoid dockage. Off-colored, mouldy, or green-colored, immature seed results in reduced grades. Manufacturers claim it is difficult to get a properly clarified, sufficiently acid-free oil from immature seed or from seed injured by moisture. Damaged seed gives the elevator men and dealers excuse for cutting down the profit. The loss falls to the grower.

#### Stacking

If the crop is dropped in loose bundles, it will pay the man who does not have a threshing machine at hand to stack as soon as the crop is dry. Nothing is gained by allowing the crop to lie on the ground. Loose straw can be stacked, if thoroughly wind dried, in long narrow ricks and the stacks can be covered by a canvas cover or hay cap in the same manner as ordinary grain. Do not throw together damp straw or straw which has green plants in it. Get rid of the weeds so that the grain can be stacked or handled without mouldiness. Stacking prevents loss through moulding on the ground, prevents loss by shelling and prevents rapid introduction of wilt fungi into the soil.

#### Disease Control

Control the root and seed disease of flax. Get the resistant varieties of seed. Raise your own seed and purify it, through the seed field purifying process.

#### How To Sell Seed

(1) Grade and clean your seed at the earliest possible date; (2) Send a sample of the cleaned seed in the condition you intend to offer it for sale to the Pure Seed Laboratory. If possible, have it registered, certified and listed under the state law; (3) If of high grade as to pedigree and purity, have it sealed, either under your own lead seal and tags, or through the aid of the Pure Seed Laboratory; (4) Get in touch with the managers of seed houses who are looking for good seed; (5) Exhibit seed at the county, district and state seed shows; (6) Do not be afraid that too much good seed will be on the market and that you will not be able to sell seed of high quality. (Nearly a million bushels of good seed is each year needed.) If you do not succeed in selling seed, you will succeed in getting better yields year by year. The reason the crop has been failing in yield and quality is largely due to the fact that just any kind of flax seed has been used as seed.

#### Seed Field Inspection

Those who wish an expert from the State Pure Seed Laboratory to inspect their seed as it stands in the field, or bin, or to arrange for seed certification or sealing, should write to the State Seed Commissioner at once.

#### WHAT THE BANKER CAN DO

Opportunity is offered the bankers and business men of the Northwest to cash in their pledges of friendship to the farmer, and at a reasonable profit to themselves says Farm, Stock & Home. The unusually heavy barley and wheat crop makes the farmer's paying ability after harvest above par. The lateness of the corn crop makes a silo a necessity, in a majority of cases, if loss of that crop is to be averted.

This means that many farmers, good business risks, but short of ready money, must borrow on time ranging from thirty days to one year. F. S. & H., anticipating this situation several weeks ago, addressed the following circular letter to Northwestern bankers:

"We want to direct your attention to local conditions and ask you whether, in your judgment, it is not possible to co-operate with your farmers in furthering the silo building program suggested by E. S. & H. There is more than the mere loss of the corn crop to think about, especially in the newer sections of the northwest. A man who has tried a new crop and found it unprofitable naturally grows discouraged and goes back to his old system of cropping, thus undoing in large measure the educational work of recent years. That this result is bound to occur in many cases, there can be no doubt, unless by the erection of silos and the storage of the crop it becomes possible for him to turn threatened loss into profit.

"F. S. & H. suggests the possibility of loans running for say one year, sufficient in amount to provide the material for silo construction, the security to be chattels in some form, preferably live stock—young animals that will come into market condition within the time specified by the loan. "We believe that your influence in this direction would tend very materially toward the building of silos and the establishment of the Better Farming Movement upon a permanent basis through your locality."

The answers printed below show that wideawake bankers can do when they have the good of the community really at heart:

"I can assure you that the Bronson Bank will do its best to induce the farmers to build silos and will also be glad to furnish the necessary capital in cases where this is required. Thanking you for the interest shown in this matter and assuring you of hearty co-operation, I am, E. M. Engelbert, President Bronson, Minn., State Bank."

"Acknowledging your circular letter of the 15th, we shall be pleased to co-operate in any manner towards the conserving of the corn crop for feed purposes this year. Corn is now making good progress and there is every evidence that silage will be obtained even if the corn itself does not mature. To offset the loss of corn silage there is an unusually heavy growth of tame grasses altho wild meadows are too wet to cut at this time.

"We will be pleased to extend any legitimate accommodations we can to our farmers, but so far we have not had the demand for silos that I would like to see.—A. G. Wedge, First Na-

tional Bank, Bemidji, Minn."

"I certainly appreciate your stand on the silo proposition and to show you that I do not oppose silos, I herewith enclose copy of our local paper which explains our plan fully. In making this offer I am in hopes that eventually we will have a silo on every farm in this county and am also in hopes that other bankers will follow my plan.—C. L. Hansen, First National Bank, Thief River Falls, Minn."

There are fair samples of the replies received from the bankers. The offer to which Mr. Hansen refers is that he will furnish money for the building of fifty silos, free of interest charge, for one year.

If these men can do this for their community your bankers can do as much for yours.

Remember, F. S. & H. does not advise the ill-considered making of loans. But in view of the general situation, and holding in mind their professed friendship for the farmer, the man who needs a silo or live stock, and has behind him a fair line of credit, can and should go to his banker and ask for a loan, not as a favor, not because he is poor and needs help, but because he has a good business proposition that any progressive banker should be willing to finance.

#### THE FARM AS A FACTORY

The farm is a factory where out of certain chemicals in the soil and water and air, grain or livestock, fruit or vegetables are manufactured, the kind of farming determining whether the factory will be able to continue doing business or whether in time the stock-room will give out and the factory close its doors, says Farm, Stock & Home. The abandoned farms found in many parts of our country are such because the output no longer is sufficient to pay the running expenses. When a man raises a bushel of wheat he takes out of the soil something like 40 cents worth of fertility. In addition to this, he puts into the growing of this bushel of wheat about 60 cents worth of labor; consequently if he cannot sell it for more than one dollar per bushel, he is poorer at the end of the season than at the beginning, inasmuch as he has drawn on his stock-room without replenishment, and in time the yield will become so small that it will not even pay for the labor expended, to say nothing about the fertility used up each year. This kind of farming might be likened to mining, where after a certain number of years there is nothing but a hole in the ground left.

Now imagine running a factory so that the stock room is refilled over night, and every day the workmen find an abundance of new material to draw from. Such a factory could eliminate the item of expense for material. No factory does exactly this thing. Nor can the farm do it, but the growing of livestock comes the nearest to replenishing the stock-room of anything that has yet been thought of. When the farmer grows clover, alfalfa and grain, he draws very heavily upon the supplies of fertility in the land. This fertility he carries to the barn, places in the hay mow, in the silo, or in the feed bin. The cattle consume it, and the waste matter from their bodies goes back to the soil, and largely though not quite makes up for the fertility that has been taken away. So nearly perfect is this process of return of fertility that in the case of the production of butter it takes something like \$900.00 worth of butter to remove 50 cents worth of fertility from the soil.

It is for this reason that stock farming is the best kind of farming to follow. In the case of fruit and vegetable growing the loss of fertility per dollar of product is also very low, although the total loss per acre is high owing to the large production. The term "canned sunshine" is sometimes used as a poetic phrase for apples and small fruit, and it is not misleading. The farmer who requires his land to produce grain and sells that grain on the market is making the cheap raw material which other men manufacture into high priced articles of general use, such as flour, lard, oil, beef, butter and the like, and following the usual course of economic laws, he gets paid for his labor, and gives away the material out of which his product was manufactured.

The end of that kind of farming is ultimate failure and can be nothing else, while on the other hand the man who manufactures something that lives on the land, or returns to it the highest possible degree of the fertil-

ity taken away by the crop, is manufacturing a finished product. And again in harmony with the same economic laws that go to make poor the seller of raw products, he gets return not only on his labor, but upon the labor of the stock which he employs to transform the raw material into the finished, and in addition to this he receives pay for the raw material itself. This then makes the difference between the grain farmer and the stock farmer, that the one sells raw material and his own labor at the price of the labor, while the other sells the raw material, the manufactured product, and his own labor at approximately the value of all three.

#### SEED CORN

The seed is the bridge over which the improvement in our corn crop is carried from year to year. This season having been unfavorable, it is going to be more difficult to secure seed than usual, which also means that it will be much more expensive than usual. Corn in the milk stage will grow so that if the corn is no farther along than this when the killing frost comes, save it for seed. It will be more difficult to cure than if mature so it must be kept where it will have a good chance to dry, and it should be put to drying at once. It should be kept where the circulation of air is good and where it will not freeze. It will shrink badly but if well cured will grow. If it is possible to secure more maturity in the corn it should by all means be done. But rather than lose the seed, save it when quite green.—N. D. Ex. Station.

#### KILL THE RAT

Dr. J. G. Hurty, Health Commissioner of Indiana, estimates that a rat destroys \$1.00 worth of food annually and Dr. J. S. Crumrine, Secretary of the Kansas State Board of Health estimates that the rat population of that state is in excess of human population. A writer in an agricultural Journal estimates that there are \$100,000,000 worth of grain every year. These estimates may seem somewhat high, but they are substantiated by the following bulletin issued by United States Public Health Service: "The average Mrs. Rat will contribute three litters yearly, each litter averaging 10 young. It has been computed that Pa and Ma Rat will in five years, provided all offspring live, increase by arithmetic progression to 490,369,562,152 rats." Of course, they do not all live, but the majority of them are pretty healthy due to the fact that man has been providing both food and shelter for them.

#### Why's "Gets-It," for Corns, Like a Kiss?

Because Everybody Tries It, Everybody Likes It, It's Painless and Takes But a Moment to Apply.

"Gets-It" is the wonder of the corn-patched world. Millions say so, because millions have used it. That's what makes it the biggest selling



"Never in My Life Saw Anything Act So Quickly and Magically as 'Gets-It'." corn remedy on earth today. "Gets-It" will surely get that corn or callus you've been trying for a long time to get rid of—take it right off "clean as a whistle." Apply it in 2 seconds,—put your stocking and shoe right over it,—nothing to stick, nothing to hurt. You needn't fuss with thick bandages that make a package out of your toe. No knives, razors and scissors, no tape, no trouble. It's simplicity itself, sure, quick, painless. Try it also for bunions and warts.

"Gets-It" is sold at all druggists, 25c a bottle, or sent direct by E. Lawrence & Co., Chicago.

Sold in Williston and recommended as the world's best corn cure by Erick Kather, S. J. Creaser.

## Maybe You Were One of Them

### Were You Cheated

into believing that because a baking powder foamed up over the top of a glass when water was added, that it was a good, pure and strong baking powder?

It foams because it contains ALBUMEN (sometimes called the white of egg.)

ALBUMEN in baking powder is no help in the baking.

It does not make a stronger or better baking powder.

It deceives the consumer when she sees it foam in the glass.

State after state has ruled that baking powder mixed with ALBUMEN is illegal and has stopped the sale of the stuff.

United States Government authorities have declared that the water glass test is a fraud, and that albumen does not help the baking.

Food commissioners North, South, East and West have denounced the albumen fraud.

The manufacturers of K C BAKING POWDER have never found it necessary to resort to such fraudulent methods.

## K C BAKING POWDER Contains No Albumen

It is a pure food baking powder, sold at an honest price and no better can be bought at any price.

25 Ounces for 25 Cents—ASK YOUR GROCER

**TOILET & BATH**  
**10¢**  
**KIRK'S JAPANESE SOAP**  
**RINSES EASILY**

**Repairing and Rebuilding a Specialty**  
**SHIP YOUR Auto Radiators**  
**Reasonable Prices and Prompt Service**  
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