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lect Seed-Wheat Now.

careful selection of seed-wheat before marketing the crop, would to be made imperative by con- s which have revealed them- in the Red River country and here. A large portion of the is rusted and shrunken; and un- he selection is made before mar- the bulk of the crop, the farmer ely to find himself without a suffi- of seed fit for next spring's ng.

J. D. Bilsborrow, of the Crooks- Experiment Station, reports an sis of a sample which he thinks sentative of much of the wheat e Red River Valley, with the fol- g results:

an and plump seed,	27 per cent.
unken seed,	64 per cent.
eds and dirt,	8 per cent.

e sample was No. 3 Northern, and ed fifty pounds per bushel. At rate shown by the analysis, it d be necessary to save about four els of wheat for every bushel of needed. A vast deal of trouble be avoided, therefore, by bringing anning-mill into use for the pur- of selecting seed, before market- ny grain. And if anyone is for- te enough to find himself in pos- on of an over-supply of clean, p and heavy seed, he can be sure high price for it in the spring.

additional encouragement for g up at once the work of selec- is found in the fact that plump well-developed seeds, coming from sted field, indicate that the plants h bore them had rust-enduring ties, a continuance of which may oked for in their progeny.

the presence of an inferior crop, reful selection of seed, first for and then for weight, is practically same as taking out a policy in- g a good crop in 1912.—C. R. s, Extension Div., Minn. Agr. Col-

tension Division Notes for October.

By A. D. Wilson, Supt.

ry to protect all stock from cold ds and rains. It pays.

FALL PLOWING.

all plowing is to be preferred to ng plowing. This applies also to l for corn that is to be manured ng the winter and spring. A rea- able dressing of coarse manure may disked in without difficulty, and is etter position to aid the crop than n plowed under.

HOGGING OFF CORN.

any good, careful farmers find it ctical to hog off some of their corn. will pay you to look into this ques- , if you have not already done so.

FATTENING POULTRY.

ry finishing some of your poultry fall before marketing. If it pays convert corn into 6-cent pork, it y pay better to convert some of it 12-cent poultry.

DON'T BURN THE STRAW.

on't burn the straw piles. If the aw cannot be used for feed or bed- g, scatter several feet deep in the ds, where it will rot and be con- ted into manure. If you have more aw than you have use for, it is evi- ce that your farm is under-stocked h live stock; hence in need of all ilable manure.

Selection of Potatoes.

We have noticed, in attending a mber of county fairs, that some of e people who have exhibited pota- es at these fairs have made very le effort toward selecting uniform d desirable tubers. While farmers e, in one sense, independent and n raise any crop they wish, if they uld get the best price for their oducts they must raise the kind of oducts that buyers want. Large yers of potatoes, who are really the ople who make the market for po- toes, prefer and will pay more for ooth, medium-sized, uniform pota- es than they will for large, rough tatoes or potatoes not uniform in e. They pay more for two rea- ns: First, the smooth, uniform po- oes can be peeled with much less ste than can the other kind of po- oes; second, these smooth pota- es can be peeled much more cheap- often with the paring machine; ile with the rough, irregular pota- es it is impossible to use the par- machine without very great waste. The grower who wishes to please e customers, and thus get the top ice for his products, will be very reful in selecting potatoes, espe- lly for seed. In selecting potatoes r seed another point beside uniform- and smoothness must be consid- ed; that is, one must know the gen- al character of the type of potatoes grown, and hold closely to that type in his selections. Potatoes are likely to "run out" if the seed is not care- fully selected. One of the first indica- tions of running out is the slight tap- ering at the seed end; and no pota- toes having a tendency to taper at the seed end should be used for seed. It is possible to maintain, and even to improve, a variety of potatoes grown in a locality, if careful attention is paid to the selection of seed and the preparation of the soil.—A. D. Wilson, Minn. Agri. Ext. Division.

The Farmer as an Educator.

We have read much about carrying education to the farmer—giving his children better schools, and himself a larger share in the current educational uplift. But today the school organiza- tions in not a few of the states are, curiously enough, looking to the farms —not for pupils with whom to fill the schoolhouses, but for men competent to assume the teacher's platform as instructors in Farming.

The demand for the farmer as an educator is one of the interesting feat- ures in the trend of modern education toward a combination of the practi- cal and industrial with the scientific and theoretical. The Agricultural College is nowhere fast enough sup- plying graduates in numbers sufficient to fill the current demand for instruct- ors. Just as West Point has failed to supply enough graduates to officer the regular army, thus compelling the gov- ernment to look among civilians for lieutenants, so have the Agricultural Colleges failed to meet the pressing call of the rapidly organizing armies of agricultural students in the high and consolidated schools. In Minne- sota, the grant of State aid for schools of either class depends on the em- ployment as instructors of men skilled in scientific agriculture. This is the day of opportunity for the educated farmer.

This new development in eduational ideas is to have a large share in the process now going on, of elevating Farming to the rank of a profession, and of making the farm attractive to the ambitious boy. The facts which he there masters—the skill he ac- quires in field and garden—may count largely, some day, when supplemented by sufficient schooling, in securing for him a coveted position, where to the ownership and revenues of a farm he can add the social power and leader- ship which attaches to the holding of a high position as an instructor. His combined opportunities will far exceed those of the average lawyer, doctor or trader.—C. R. Barns, Extension Div., Minn. Ag. College.

Orchard and Garden Notes, October.

By LeRoy Cady, Horticultural Div. Minn. College of Agriculture.

Clean up the garden. A few weeds and other rubbish make splendid nest- ing places for many destructive in- sects.

Prepare land for a small fruit plan- tation next spring.

Make a note of desirable varieties to plant next season.

As soon as the foliage is off grape vines may be trimmed ready to lay down.

If the winter's supply of nuts has not been gathered there is still time to do so now.

Clean up the yard and farmstead generally. Plan to set out a few more ornamentals next spring.

Dig gladiolus as soon as foliage is frosted, dry and store in a cool dry place. Do not allow them to freeze.

Dig the carrots, beets, etc., and store them for winter use. Medium sized tender roots are best for winter use.

There is still time to plant a bed of spring tulips. Good varieties can be purchased for a dollar a hundred.

Dahlias may be dug as soon as the foliage is killed by frost, allowed to dry partially and be stored in boxes or on shelves in a cool, dry cellar. It is usually well to put sand over the roots if the cellar is very dry. They should be watched and if they start to wilt put sand over them. If too moist de- cay will set in.

Hyacinths and daffodils may be pot- ted for spring blooms. Just cover the bulbs with soil and set in a cool, dark place for two or three weeks until the pot is full of roots; then gradually bring them into the light and heat. The result is worth the effort. Any of the Dutch hyacinths are good. Among the daffodils, Emperor, Em- press and Golden Spur are good.

The Industrial Contest.

The value of the Industrial Contest to Minnesota cannot well be estimat- ed. The interest and enthusiasm aroused in the boys and girls, and in the older people as well, and the actual knowledge gained by them, are factors which can but result in profit to the State. To be sure, the Con- test does not provide for an extended course in Agriculture; but it does re- sult in arousing the interest of the boys and girls in some of the com- mon things about the home and farm, and in increasing their stock of knowl- edge regarding these matters.—A. D. Wilson, before National Convention of Farmers' Institute Workers.

Winter Protection of Small Fruits.

All our small fruits are benefited by some slight protection during the win- ter. Strawberries are best protected by covering with clean straw or marsh hay. This is done after the ground has frozen solid enough to hold up a team and wagon. Good, clean straw or hay is thrown over the plants from four to six inches deep. It is a good plan to cover the plants lightly before a heavy frost, as this holds the foliage in better shape during the winter. However, if this has been neglected, it is customary to cover to the full depth at once. Strawberries are covered to prevent freezing and thawing during the winter and early spring. In dis- tricts where a heavy fall of snow is certain and where the snow remains on all during the winter it is not so necessary to cover the plants. Some- times the straw is put on after the first fall of snow. The objection to this, however, is that the rows are hard to find, and the quantity of covering used is much increased. In the spring, as soon as the plants begin to make a growth under the straw, it may be re- moved, either entirely from the field; or, better, a large part of it left be- tween the rows ready to put back in case of a late spring frost, and also to keep the fruit clean.

Raspberries.—It is usually better to protect raspberries over winter by burying in the soil. Hovever, in loca- tions where they are sure to be cov- ered with snow, this is not so import- ant. As soon as the leaves are off in the fall, the plants are tipped to the ground and a couple of shovelsful of soil placed over them,—enough to hold the plants as near the ground as pos- sible. This is usually followed by throwing a furrow on both sides of the row of plants. In the spring the soil is shaken off of the plants, and they soon straighten up. This work must be done when there is no frost in the stems, as they are easily broken. Blackberries are also protected in this way. It is usually better to tip the plants to the north, if the rows run north and south, as they straighten up quicker in the spring when uncovered.

Grapes.—Grapes are pruned in the fall; usually a half or two-thirds of the new growth is taken off—depend- ing on the system of training that is used,—and the plants are laid on the ground and covered with earth in much the same way as raspberries.

Currants and Gooseberries.—Cur- rants and gooseberries need very lit- tle, if any, protection over winter. It is often a good plan to tie the tops together, so that a heavy snowfall will not break the branches to the ground.

Apple Trees.—Apple trees should be mulched if they are not well protected. Straw or litter may be placed on the ground about them early in winter, to hold the snow and prevent sudden changes of temperature at the roots of the trees.

Rabbits and mice may be kept from injuring the trunks of trees by boxing, or by placing a piece of galvanized wire screen around the tree trunk and covering it to the height of about twenty inches. This will also prevent sunscald; and it costs much less than to replace the trees after the rabbits have injured them. The snow should be well tramped about young apple trees, to prevent mice from injuring the bark under the snow-crust.—Le Roy Cady, Minn. University Farm.

To The Editor.

This sheet is printed exclusively for your use and for the benefit of your readers. It has no other readers—no subscription list. Only by the repro- duction of its articles in your pages can it accomplish anything for the farmer.

It is of the greatest moment to us, then, that the articles we present shall be such as you want—such as you think will increase the value of your paper to your subscribers.. We shall, therefore, be grateful for any suggestions you may offer, from time to time, concerning topics to be treat- ed in these columns. And if, occa- sionally, you want a special article, on some topic of immediate interest to the farmers of your particular local- ity, just write us, and we will en- deavor to furnish it.

Storing Cabbages.

Many farmers are under the impres- sion that cabbages will keep better if stored with the root attached. Mr. F. H. Gibbs, the market-gardening expert, in a talk at the late Minnesota State Fair, declared this to be a mistake; the roots simply making an additional weight to handle, and taking up a great deal of room unnecessarily. The proper method when storing is to cut off the roots smoothly, as when pre- paring the cabbage for the table, wrap each head in an old newspaper, and pack in regular cabbage-crates or lay on shelves, not more than two heads deep.

Winter Protection of Roses.

A few of the roses, such as Rosa Ru- gosa, need very little protection. It is sometimes advisable, in the case of Rosa Rugosa, to mulch quite heavily with strawy manure, late in the sea- son. This will hold the snow, and pre- vent freezing and thawing during the winter. The more tender varieties, such as the Ramblers, may be laid on the ground late in the season, and cov- ered with soil; or, if this is not con- venient, a heavy covering of straw or hay may be placed over them. Tar paper or boards, or both, may be placed on top of this in such a way as to shed water. The important point to remember, in the protection of out- door roses over winter, is to protect the plants from becoming wet at any time during the winter. It is usually a good plan to trench alongside of the plants as they are laid down, to pre- vent water running in and causing the plants to become wet and decay. The covering should be done quite late, so that mice and other rodents will have found other places to nest, and will not be so apt to work in the covering material. They, however, may be poi- soned by the use of tin cans in which corn soaked in strychnine, or some other poison, has been placed. Do not have tar or tar paper near any of the plants; as the sun is apt to heat this and it oft-times gives off fumes and chemicals that are injurious to the plants.

It is better to leave most of the pruning until spring; then, as they are uncovered, prune back to the desired distance. Some pruning, however, is very often necessary before fall, for convenience in laying down.

Herbaceous Perennials.—Herbaceous perennials are usually protected by covering with straw or strawy mate- rial, in such a way that no water will settle around them; and also so that the snow will not pack so heavily over them as to smother the plants. Board frames, or something of this sort,, to shed water, are always de- sirable.—Le Roy Cady, Minn. Univer- sity Farm.

Standardizing Agricultural Education.

The meeting, at St. Anthony Park, of instructors engaged in teaching Agriculture in high, consolidated and other schools, to consider the stand- ardizing of Agricultural courses, was well attended; but resulted in noth- ing beyond a lively and illuminating exchange of views, and the appoint- ment of a committee to arrange a variety of courses, among which the teachers are to be at liberty to choose the one they deem best suited to their respective local conditions—or none.

If any one, prior to the meeting, en- tertained the notion that Agricultural education, in a great State like Min- nesota, could be "standardized," by the adoption of uniform courses, so that pupils taking such would come out as much alike as so many ten- penny nails, he must have experi- enced a rude awakening. For there was manifestly little desire for any such process. You may standardize tools, machines, text-books; but never thinking, investigation, processes or development; and Agricultural edu- cation, in its present stage, has more to do with these last than with the former. It is undesirable that the channels or directions in which these are employed should be in any way limited. Every day makes new revel- ations of the boundlessness of Agri- cultural development made possible by the application of science to the pro- cesses of the farm.

Local conditions, too, necessitate so many variations in the subjects which it is desirable should be taught, or in the comparative amount of time to be given each, as to render still more difficult the work of standardization.

There are, however, certain facts, both elementary and abstruse, and certain generally-accepted theories, the teaching of which may well be made common in all agricultural courses; and some approach to uni- formity or "standardization" in the teaching of these, with a view to the most rapid advancement of the pupil as he passes through the various grades leading up to the Agricultural College, is of course desirable. This will probably be acceptably made through the labors of the committee referred to.—C. R. Barns, Extension Division, Minn. Col. of Agr.

Wallace's Farmer says "Silage will keep as well as canned fruit." It af- fords an admirable resource in times of drought, when pastures are dried up, and when, in the absence of silage, stock must often suffer for want of succulent food.

Farmers' Credit Unions.

The principle of co-operation can be as beneficially applied in the estab- lishment of bank credits as in any other way. This was some years ago discovered in Germany; where, under the "Raffeisen plan," farmers have learned to combine in associations, scattered all over the empire, which borrow money in large sums on their joint responsibility, and then lend it out among themselves in smaller sums, at a slightly greater interest. The plan requires no banking build- ing, and no salaried officers except a modestly-paid secretary; so that the slight difference between the rate of interest paid and that received covers all expenses and risks. The latter, from the fact that money is never lent except for productive undertakings, or to any person not well known to the members of the association, are very slight—so slight, indeed, that large amounts of government funds, as well as of the resources of private finan- cial institutions, have been freely placed at the disposal of the associa- tions.

Another form of co-operative credit organization in Germany is known as the "Schulze-Delitsch" plan. This is very much like our own American joint-stock banks, state or national, except that no person may hold more than one share of stock, which may be valued at say $150 or $250, but which may be paid for in small in- stallments. The combined credit of the stockholders is used to borrow from great financial institutions such large sums as may be called for, and as it may not be possible for the bank to furnish from its own capital; and the bank can usually obtain as much as is wanted without difficulty. The same restriction of the use of loans to the forwarding of productive enterprises—to the exclusion of the demands of speculation or extrava- gance—tends to make the credit of these institutions practically unlim- ited.

In America, the great number of privately-owned banks, incorporated under state and federal law, and find- ing business opportunity even in sparsely-settled communities, would seem to make these the natural media through which farmers' credit asso- ciations should procure their loans. An association of men owning their several farms, well acquainted with one another, and combining their in- dividual credit to form a "backing" for each member who may be in need of a loan—say to facilitate the mak- ing of a crop, the erection of a barn or silo, or the carrying through to the finishing and marketing of a drove of beef cattle—will ordinarily be able to secure, through their local banker, any amount needed, and at a rate con- siderably lower than must necessarily be exacted on ordinary notes. If the banker's own funds do not suffice, he can easily get, on such paper as the "Credit Union" offers, all that is need- ed, from some financial center where money abounds, and where interest rates such as now prevail in rural transactions are practically halved.

The use of a few hundred dollars at the right time, on the farm, often means the difference between a good and a poor year's income; and a strong "Credit Union" would seem to be the most ready instrument for mak- ing such sum always available to the farmer when needed.—C. R. Barns, Ex- tension Division Minn. Agricultural College.

Savings Bank Hints.

Rutabagas, beets and carrots may not be of great money value to the grower just at present. Perhaps he is planning to let them rot or to feed them to the stock. But indications are that they will be worth from 75 cents to one dollar per bushel before spring. Such has been the case for many past seasons. They can be kept perfectly in an easily-constructed pit or root-cellar, taken out in late winter, and turned into a neat bit of spending- money.—Le Roy Cady, University Farm.

The Lawn.

As long as the grass continues to grow, the lawn should be clipped; but set the mower to cut rather high. This helps to thicken up the grass close to the roots, where it needs the winter protection. This winter plan to cover the lawn with fine sheep-manure; or, if it cannot be had, use cow-manure with little or no trash. Contrary to be- lief, the litter adds no protective fea- ture, when the growth of grass has been treated as above; and the fertiliz- ing value of the clear manure is far superior to that from vast amounts of trash.—Le Roy Cady, University Farm.

Parsley in Winter.

A fine supply of parsley can be had for winter use by lifting several plants and placing them in a small box of soil in a sunny cellar window. Treat as one would house-plants.