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FRUIT MARKETS WANTED.

laces Wanting Fruit Asked to Send Names to Manager.

K. A. Kirkpatrick, temporary manger of the Minnesota Fruit Association, has opened an office at 206 Lumber Exchange Building, Minneapolis, here he is working to locate markets r growers who have fruit to sell. r. Kirkpatrick has been engaged in rmers' institute and agricultural exnsion work in Minnesota for two ars, and his knowledge of local contions makes him especially compent to handle this problem.

An endeavor is being made to sere the hearty and consistent coeration of every fruit grower in the ate that the new movement among e fruit growers of Minnesota may made a success. It is the desire the manager to find markets in the naller towns north and west of the ate's fruit producing area, as it has een found that Twin City markets re not inviting to the small grower ho ships his own products.

Growers who wish to obtain a maxium price for their fruit should invesigate and list their produce with the ssociation on report blanks which ay be secured at the central office. nterested persons in non-producing rritory will be of service to the asciation by sending in the names of rsons who wish to buy fruit. Grows are asked to pick and pack their uit in such a way that buyers will k for more of it.

Any questions which fruit growers, fruit buyers, wish to have asked ould be sent to the Minneapolis fice, and an immediate reply will be ade.—Ray P. Speer, University Farm.

CORN PRESERVED IN SALT.

Select corn in the roasting ear stage emove the husks and silks and cut ff, or grate off, the grains as though r stewing. Measure the corn, and, r each quart of cut off grains, add ne cup (½ pint) of salt, and one-half up (¼ pint) of sugar. Add one cup f water, stir all together, heat to the oiling point, and let boil ten minutes. tir all the time to prevent burning. fter it begins to boil, let it boil for n minutes, then put into sterilized rs and seal as fruit. The corn must e soaked in water to freshen it bere using. I have never known it of eing put up in any other way, but I elieve it would keep if put up in clean oiled stone jars, and the top was covred one-eighth of an inch thick with oiling paraffine. I have never tried ne stone jars, but know that the corn ill keep if put up in the ordinary uit jars.—Miss J. L. Shepperd, Minesota Agricultural College.

COUNTY FAIRS IMPROVING.

Gambling Devices of Years Ago Making Way for Blooded Exhibits.

The county fairs in Minnesota this all promise to be better than at any ther time in their history—a condiion of which the state may well be roud. Under the inspiration of inreased state aid, the county fair is ast becoming what it should be.

What a change is this from the haracter of the fairs held a generaion ago! In the fairs of years ago, he wheel of fortune, the cane rack, nd other gambling games held sway. ersons seemed to attend the fairs to atch the fakirs, to see the horse aces, and to visit the side-shows. ow they have found that these musements bring no lasting benefit, ut only take money out of the comunity. Even the horse races are not ttended with the interest manifestd a few years ago. Visitors are too nterested in the pure-bred stock of he fair.

At present, premiums are becoming rger and are extending over a larger eld, and, as a result, the exhibits are ncreasing in number and the quality these increased exhibits is better. armers are beginning to see in the ounty fair a chance to learn more bout live-stock, an opportunity to udy the different breeds and types, chance to buy stock suited to their eeds. The farmer studies better mainery and learns more about better eed. He brings his family with him, nd the day is spent in whole-hearted njoyment and in becoming acquaintd with the neighbors. When the famy leaves, all are better satisfied with he farm, and there is imprinted a eeling that life is worth while, after ll.

Still, while a good start has been ade, much remains to be done. We have not yet scratched the ground in reaping the crop of possibilities in that direction. Too many times the jealousy of the fair association, or the city officials in which the fair is to be held, leads the farmer to stay at home at fair time. How much better would it be if he and his family were to drop farm work, visit the fair, swell the exhibits with the best from his herds and fields, help to make his county fair the best fair in the state, and make his county appear to be the best place in all the world for a man to live in and enjoy the abundant life about him.

A few years ago, the agricultural society in a certain county sold season tickets to the fair at a ridiculously low price. It was hoped that everyone would buy a ticket and swell the attendance as well as assure the financial standing of the fair. One good old lady — and, undoubtedly, there were others, as well—spent much of her time in urging her nighbors not to buy a ticket, for, as she said, "It might be a rainy week, you know." Dollars may be waged to doughnuts that this good woman spent many times the price of a season ticket that year for things that did not do her, or her county, one-tenth the good that would have been secured had she purchased a ticket, even though she never visited the fair.

The county should not forget the advertising value of a well managed county fair. At a certain county fair, last year, a splendid display of corn was made. There were many farmers from Iowa at that fair, and all were astounded to see such corn. They said that they had never known that Minnesota could raise such corn, and predicted, if such displays could be made at succeeding fairs, that the land would rise $20 an acre.

And so let us all go to our county fair. Let us attend it, realizing that we are boosting one of the greatest public agencies for good that the county possesses. Let us "Look up, not down; look out, not in; and lend a hand."—George F. Howard, Extension Division.

ORCHARD AND GARDEN NOTES.

By Le Roy Cady.

Remove large weeds from the garden patch. Never let them go to seed, as this will spread the weeds next year.

Stop cultivating the orchard about the middle of August, and seed with some cover crop, as oats or rye, to hold the snow.

Prune out the old raspberry canes as soon as they are through fruiting.

A new strawberry bed may be set now if the ground is moist, although spring is generally a better time.

Among the perennial plants, the old-fashioned hollyhock has bloomed especially well this year.

Plan to show something at the county or state fair. A few of your products on exhibition will not only give you more interest in the fair, but if properly prepared and shown, will interest others, too.

Seeds of hardy perennials, such as coreopsis, Canterbury bells, foxglove, gailliardea, may still be planted in sheltered places and transplanted in September to flower next year.

Don't buy nursery stock from a nursery agent or from a nursery whose reputation you are not certain is good. Pay a reasonable price for stock, and accept only good stock. Use only those plants adapted to your conditions. The fruit list of the State Horticultural Society is a good guide to follow.

Have you thought about ordering bulbs for fall planting? Send to some of the seedsmen for bulb catalogues and plant a few tulips, daffodils, and other bulbs this fall.

Tip layer the black raspberries this month if you wish to set out new plants next year.

Rosa Rugosa, Dorothy Perkins, Crimson Rambler, and Prairie Queen are four roses that have done well this season. The last three roses are climbers.

Cotoneaster acutifolia emerged from the winter in such condition as to make a splendid record this season. It makes an admirable specimen plant, or looks well when used in a hedge.

Plow up the old strawberry bed and sow turnips.

This time of the year many school yards, cemeteries, and church yards are rough, neglected places. A few hours work with a mowing machine or scythe would make a great difference. Who will do the work?

Hoe around the shrubs and plants in the school yard. Give them a good watering, if necessary. A little attention now will enable them to bloom another year.

Early blooming wild flowers may be transplanted from the woods now. If they are carefully set, they will bloom next season.

FILL UP THE MILK PAIL.

Green Feed Given to Cows Will Insure Larger Profits.

Now that summer is well advanced, the cows should be fed green stuff from the fields so that they will not dry off and become strippers, unless they have been bred to freshen in the fall. Many cows calved this spring, and to permit these animals to become strippers means to lose a real profit.

Hot weather and flies worry the cows a great deal, but they do not cut down the milk supply like dry, scanty pasture. To live comfortably and yield a fair mess of milk, the cow living on pasture must eat about 100 pounds of grass a day. Does the average person ever stop and think about the amount of work which the animal must do to find and eat 100 pounds of grass? It must be remembered that a cow's mouth is not as wide as a lawn mower, and that many, many bites must be taken in one day to secure enough food, even when on good pasture. If anyone doubts this analysis of the problem, let him go out into the pasture some day and cut 100 pounds of grass with a pair of shears.

As a matter of fact, the cow, when she has satisfified her own hunger, will oftentimes lie down in the pasture and forget all about the grass which she should have eaten to make her keeping profitable. To obtain a profit the cow must eat much more feed than is needed for her own personal needs. She will not produce liberal quantities of milk unless she is fed liberally. She will eat a liberal amount of feed only when she can get it by expending a minimum amount of energy.

In a test made by the writer which lasted three years and concerned a herd of 60 dairy cows, it was conclusively shown that cows on short pasture, even though well fed at the barn, became dry sooner than the cows who ate a similar amount of feed, but who were not compelled to run about while they were securing it. The cows which were fed put the energy into the milk pail, which the others exercised in running about.

The summer silo is the best means of bridging over this dry spell. If the farmer with cows does not have a summer silo, however, he should feed green feed to them. Corn or peas and oats, make an admirable green feed.—R. M. Washburn, Dairy Division of Minnesota College of Agriculture.

SOILS LOSE FOOD.

Plants Remove Valuable Elements Which Must Be Returned.

The farmers of the Northwest are fast recognizing the fact that each crop which is harvested removes from the soil certain plant-food elements which must be replaced, if crop yields are to be maintained. If care is not taken to keep the soil fertile by putting back these forms of plant food that have been removed, it has been found that smaller and smaller crops will be obtained.

The four elements removed by growing crops which oftentimes exist in such limited quantities that they must be replaced, if the crops are to continue to do their best, are nitrogen, phosphorus, potassium, and calcium, or lime. The nitrogen is found in the humus, or decaying vegetable matter of the soil, while the other elements are found principally in mineral combination. The following figures show the amount of plant-food which is removed from the soil by the different crops, the value of this plant-food being measured in terms of what it would cost if purchased as a commercial fertilizer:

Twenty bushels of wheat will remove from the soil 25 pounds of nitrogen, 12.5 pounds of phosphorus, and 7 pounds of potash, with a fertilizer value of $4.91. The straw removes 10 pounds of nitrogen, 7.5 pounds of phosphorus, and 28 pounds of potash, with a fertilizer value of $3.33. The entire wheat crop, unless the fertility removed is replaced, takes fertility out of the soil valued at $8.24, nearly one-half of it being removed by the straw.

In a similar way, a fifty-bushel oat crop will remove fertility worth $11.06. sixty-five bushels of corn contain plant-food worth $7.96 in the grain, and worth $7.94 in the stalks, or nearly twice the total amount removed by the wheat crop. Two tons of clover hay will remove plant food worth $4.56. This is the commercial value of the potassium and phosphorus removed, for the clover plants, through the medium of tiny bacteria living in nodules on the rootlets, leave the soil richer in nitrogen. It is an error, however, to believe that clover is the remedy for an exhausted soil if more than nitrogen is needed, for it cannot turn back the phosphorus and potassium which has been removed by preceding crops. A crop of 150 bushels of potatoes will remove plant-food worth $11.05. The average yield of flax, which is supposed to be harder on the soil than other crops, removes plant-food worth $10.80.

Certain general figures can be drawn from the above estimates. The crop which removes the least plant-food—according to its commercial value—is the two-ton clover crop, which removes potassium and phosphorus $4.56. The 65-bushel corn crop and the stover remove from the soil plant-food worth $15.90, the largest amount taken out by any of the crops mentioned. It all proves how necessary it is for the farmer to carefully conserve every bit of fertility on his farm, if he is to keep his soil productive.

A system of grain farming, when not much live-stock is kept, depletes the supply of fertility in the soil. It has been proved that such a system of farming cannot be continued, because the yields will eventually fail to pay expenses and the interest on the investment. When all crops are fed on the farm and only milk and live-stock is sold, there will be only a small loss in fertility each year if all the manure is returned carefully to the fields. A small amount of mill-feed purchased and fed to swine, or dairy cows, will usually supply the fertility lost by selling the milk and live-stock.

The farmer must learn to conserve the fertility of the soil if permanent success is to be obtained. It is as necessary for him to do this, as it is for the manufacturer to keep the machinery and system of organization in his factory at its highest point of efficiency. If he does not do this, he cannot hope to succeed permanently. —Ralph Hoagland, Chemistry Division, Minnesota Agricultural College.

HORSES NEED KINDNESS.

Comfort to Animals in Harvest Will Re-pay Owner Many Times.

One-half million horses will soon be laboring faithfully, and with small compensation, to harvest Minnesota's grain crop. The continued faithfulness of their work will depend, in no small degree, upon the care which they receive from the owners.

The horses will, in many instances, be annoyed or tortured by the chafing of harness, by flies, by heat, and by hard work. It must be remembered that these horses—like the drivers who, perhaps, sit high on the binder seat—have feelings, get tired and nervous, and become hungry and thirsty. Their discomfort should not be added to by hitting them with the whip, or by letting them go without water for an unnecessarily long time. A barrel of water should be taken to the field, and the horses should be watered as often as the driver feels thirsty.

When a stop is made, turn the horses toward the wind, if possible, so that they may cool off. When they are resting, take the load off their necks, if possible. Give them a chance to roll and scratch themselves when they are unharnessed at night. They should be given a good bed and plenty to eat at night, and they should be watered in the morning before they are fed.

There is no animal that serves the farmer more faithfully than the horse. Owners, therefore, should not be thoughtless, and permit them to suffer unnecessary discomforts. It pays in money, as well as personal satisfaction, to make the horses comfortable. —A. D. Wilson, Superintendent of Minnesota Farmers' Institutes.

A creamery operated in Catawba county, N. C., has collected the cream from its patrons, instead of having it delivered by them at the creamery as is the custom in most of our northern co-operative associations. It occurred to its managers—quite possibly from reading of what was being done in some parts of Minnesota—that when collecting cream they might as well collect fresh eggs at the same time. So they supplied the farmers with acrtons and stamps for marking the eggs and cartons; and now the collections are regularly made. The company guarantees the freshness of the eggs, and holds its patrons to a strict accountability. If one of them is twice reported as delivering bad eggs, his eggs are no longer accepted. The driver is supplied with cash to pay for the eggs as received; and the business is said to pay well. The system of collecting cream and eggs at the farms, instead of requiring their delivery at the creamery, may perhaps be an improvement on the Minnesota plan. tI would at least promote the speedier pasasge of the egg from the hen's nest to the consumer's table.

FLIES MAY BE CHECKED.

Clean Stables and Barnyards Will Eliminate Serious Pests.

If livestock owners in Minnesota kept their barn yards and stables clean, so as to prevent the flies from breeding in the manure and filth, it would be much easier to keep this pest under control. Time spent in this way will be paid by the increased comfort of all animals.

The fly cannot be controlled about the barns by merely removing the manure. All yards should be graded to prevent the formation of puddles, where flies and mosquitoes will multiply. If the puddles cannot be drained or filled, a little kerosene poured upon the water will kill the immature mosquitoes. The windows of the stable should be properly screened. This will keep out the flies, add to the animals' comfort, and lessen the amount of feed necessary to keep them in good condition. Ordinary mosquito netting tacked on the outside of the windows will suffice, but light frames covered with fly screening, which cost only a trifle more, are better. If well taken care of they will last for years.

Screen doors for a stable, while more inconvenient than screen doors for a house, will be found useful to exclude the flies. Screens on the doors and windows of the milking stables will keep out the flies, as well as secure light and ventilation. Burlaps, which is used so often, darkens the stables and hinders the circulation of the air. If the manure is not hauled out at least once each week, it should be stored in screened enclosures where the flies will find it difficult to obtain admission.

Several fly repellants, to be brushed or sprayed on animals, may be bought at $1.25 a gallon, approximately. They are successful to a certain extent, but usually they keep the flies off only a few hours. Often they are used to keep the flies off the cows during milking time, or are used on the horses during the noon hour when they are resting and eating, if there are no screens. These preparations are applied to the hair by brushing or spraying, though only a thin coat must be given. One gallon will give many applications to one animal. If the number of animals to be treated is not large, it is usually cheaper to buy a commercial preparation. If there is a large number of animals, a fairly satisfactory mixture may be made at home.

The following preparation has been recommended as an inexpensive one, and as satisfactory, probably, as the commercial mixtures: coal tar dip, any kind, one pint; one-quarter bar ordinary laundry soap; one pint oil—fish, linseed, or kerosene; fifteen pints hot water. This should be mixed thoroughly to form an emulsion, and should be applied as a thin coat by a brush, or a spray.—C. C. Lipp, Veterinary Division, Minnesota Agricultural College.

"HOGGING OFF" PRACTICAL.

Pigs Can Husk Corn More Profitably Than Farmers.

There is no better way to fatten hogs, with profit to the owner, than to turn them loose in the corn field and let them pick the corn themselves. This is what is called "hogging off corn."

It has been found in experiments by the Minnesota Experiment station and by practical farmers in all parts of the state that this method of fattening hogs is a profitable one. Everyone who has tried it agrees that it is an economical method of fattening pork. The time required to husk and crib the corn is saved. Not only that, but the hogs get the corn when it is fresh and more relished. No wonder, then, that the Station found that more pounds of pork could be made from a bushel of corn by "hogging off," than by eating husked corn.

All that is necessary to make the plan a feasible one is to obtain enough fencing to enclose a small area of corn. It is not advisable to give the hogs a large field to run in at the outset. There will be too large a waste. Twenty pigs weighing 100 pounds each, or their equivalent, should not be allowed to run on more than one acre at a time. On the average, an acre of corn should last these pigs from two to three weeks.

Hogs may be confined in the field as long as weather is suitable. They should not be turned in until the corn has ripened. Farmers should not hesitate to try this method of pork production, for it has been found entirely practical.—A. D. Wilson, Superintendent of Minnesota Farmers' Institute.