



Rocky Mountain Husbandman.

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R. N. SUTHERLIN, Editor

W. H. SUTHERLIN, Associate Editor.

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The ROCKY MOUNTAIN HUSBANDMAN is designed to be, as the name indicates, a husbandman in every sense of the term, embracing in its columns every department of Agriculture, Stock-raising, Horticulture, Social and Domestic Economy.

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Agricultural.

AGRICULTURE is the basis of all wealth.

THE honest sons of toil are the noblest of all men.

BE steady and strong and the most stubborn obstacles will yield.

THE Montana farmer who is out of debt is a happy man.

THE spring wheat crop may be made absolutely sure by preparing the land in the fall.

THE grain sown on full plowed land has already been harvested.

WE would recommend a reasonable amount of winter wheat.

FROST, grasshoppers and a dry spring seldom affects winter wheat.

HAPPINESS is not in our stars, but in the manner in which we see them.

A BOUNTIFUL harvest has blessed the labors of the farmer throughout Montana.

THE hay crop has proven more profitable in many localities this season than the grain crop.

GRAIN may be made at least a couple of weeks earlier by plowing the land the previous summer or fall.

A FRIEND of ours says he was feeding a horse on wild hay and oats and that he changed and fed timothy hay and found that he eat a fourth less oats.

TIMOTHY succeeds well on all the leading valleys of Montana, and we would recommend that it be sown extensively, especially by those who live on the highlands and have no hay.

If two tons of timothy hay can be produced per acre, it will be found a more profitable crop in many portions of Montana than either oats or wheat.

A TOMATO patch may be protected from frost by building a fire or two about it at night. If there is a breeze and there is danger this may be averted by digging holes in which to build the fires.

The farmer should beware of a mortgage. It grows while he sleeps, is nurtured by misfortune, and makes no allowance for hard times, dull markets or the failures of others.

THE hail storms last month done great injury in some valleys. In the Missouri valley it was especially damaging. One storm less than a mile in width struck diagonally across that valley, almost demolishing some fields. John Ward's field of 65 acres, which was ripening at the time, was so damaged that it only yielded about 600 bushels when threshed. Thomas McGonigal had 80 acres of two-rowed barley, which was nice and would have yielded forty bushels to the acre. It was so completely demolished that when harvested last week the yield was only 900 bushels.

OUR friends the country will enter a favor by sending us a few heads of such new varieties of grain as they may have raised this year. Please give the name, date of sowing and how many times it was irrigated. We want them for a cabinet of Montana's agricultural products.

AN Ohio farmer writing to the *Country Gentleman*, says: "Cash No. 2 wheat" is quoted at 78 1/2 cts. per bushel to-day (Aug. 14) in Chicago. Cash or spot No. 2 is really No. 1 or best quality wheat. The shippers at interior points in Ohio are now paying only 75 cts for best quality wheat. It started at 85 and 90 cts., and farmers sold quite freely, but at 75 cts. the sales have practically stopped."

WE are an advocate of home comforts. We believe that every farmer should supply all in his power without going in debt or crippling his prosperity. His farm should be well improved. He should have plenty of cross fences, an orchard, garden, poultry house and yard, good barn, tool house, convenient water for stock, and last but not least, a good dwelling, with the culinary department well arranged, the parlor handsomely furnished, and plenty of books, pictures, magazines and newspapers. We would not advocate going in debt for these, but they should be supplied at the earliest possible moment. They are about all there is in life, and the sooner the farmer begins to enjoy them the more he will get of life. It would be well also to sport a nice turnout so that whether going on business or pleasure it can be done in good style with perfect comfort. It is not all of life to have a big bank account, broad acres, large flocks and herd, or big granaries well filled. These often bring nothing but sleepless nights, unrest and discontentment. But comforts and conveniences and a good table make the farmer and his family and everyone about him happy, and this is the chief end to be aimed at.

THE fact about India's wheat production is that there is a considerable surplus being produced, but it is without benefit to the people whose labor produces it, and they are becoming poorer and more wretched every year. People who are in this condition cannot be formidable competitors; it is only a flash in the pan. The English land tax in India takes more than one-half the grain raised by the agriculturist or ryot and leaves him but little to live upon. Englishmen regard life in India as exile, and seek only to enrich themselves as quickly as possible at the expense of the natives. "The English rulers," says the Hindoo sticlian, Navroji, "stand sentinel at the whole front door of India, challenging the world, that they do and shall protect India against all comers, and themselves carry away by a back door the very treasures they stand sentinel to protect." That is one of the antiquities of Great Britain. Periodical famines in India are crises that have to be met by the English rulers before they can, with any certainty, rely upon a wheat surplus for export. The bleached bones of millions of Hindoos are silent witnesses of past famines, and a Christian nation should devote itself to the prevention of the recurrence of such lamentable events.—*Ex.*

TO EQUIP A WHEAT FARM IN DAKOTA

"The amount of machinery necessary to plant and harvest the crops of the Northwest," says the St. Paul *Pioneer Press*, "is enormous. The principal crop of the Northwest is wheat, and as nearly all the labor required to seed and harvest it is performed within a few months, usually from the first of May to the first of October—rarely six months—everything must be done with a rush. Farmers who raise nothing but wheat cannot afford to employ help all the year round, and this fact renders it very difficult to obtain the necessary assistance when it is needed during the busy season. Wages are high on account of this fact, and the wheat raiser finds himself compelled to depend upon mechanical help instead of muscle. It is questionable whether it is more profitable, yet it is most independent. To properly equip a farm of even 160 acres with all machinery necessary to plow the ground, seed it, harvest it and thrash the grain, require a large outlay of money. The total outlay for wagons, plows, harrows, seeders, and harvesters necessary to work a farm of this size is about \$700. This is an outlay that must be made before the farmer can realize from his first crop. It is not to be supposed that cash is required to buy all this machinery. The farmer can buy his entire outfit on credit. Mortgages are often

taken, but not as a rule. The agents of reapers and harvesters require no security beyond a simple note of hand. Early in the spring a perfect array of 'machine men,' as the agents are called, invade the Northwest to take orders. A farmer can buy a harvester or whatever he needs, and have it delivered in his field, set up already to start, even to being supplied with twine for the binder, by simply giving his note of hand, without security, and drawing 7 per cent. interest. These notes run from two to three years, and are often renewed if the interest is properly paid. Some idea of the amount of machinery sold in the Northwest every year, may be gained from the statement that during 1883 nearly 1,700 car loads were received at Minneapolis alone, the total number received at St. Paul and Minneapolis reaching nearly 3,600."

WINTER WHEAT EXPERIMENTS IN OHIO.

From Director Lazenby's second annual report of the station at Columbus we select the record of a few experiments and their results.

Thick and Thin Seeding—Wheat was sown on eight plots, the amount of seed ranging from two to nine pecks per acre. The ripening of the wheat was quite uniform throughout. If there was any difference the earliness was in favor of the thick seeding. In regard to quality of the grain, little difference could be detected by the eye, but careful and accurate weighing showed that the thin seeding gave the largest kernels, but the weight of a measured bushel of grain was greater, as more seed was used, the weight ranging from fifty-seven pounds where two pecks per acre were sown, to 62.5 pounds where nine pecks were sown.

Another observation of some interest is that the proportion of the stand winter killed was uniformly less in the case of thin, and more in the case of thick seeding.

Some obvious lessons from the tables are: 1. That the richer the soil and the more perfect the seed-bed the less the amount of seed required.

2. That there is more danger of sowing too much seed on an acre than of sowing too little.

3. That no definite rule can be given that will serve as a reliable guide for farmers in various portions of the State in determining the best quantity per acre. The condition of the soil and exposure, the quality of the seed, side of individual kernels, capacity of variety for tillering, liability of injury from insects and other enemies, are all factors that should have due consideration in deciding the amount of seed to use. If all the conditions were at their best three pecks of seeds per acre would be ample. This is seldom or never the case. Hence more seed is usually required.

Winter Protection—A plot was covered with straw early in December, to the depth of two or three inches. The station notes show that this plot was not injured in the least by the severe weather of the winter. Throughout the entire season the wheat presented a strong, healthy, even growth.

The straw seemed to serve a double purpose, that of protecting the young plants from the severity of the winters, and by acting as a mulch also protecting them from the drought of summer.

Early and Late Seeding—Plots were plowed and sown at various times, and from tabulated results the following conclusions were drawn:

1. Winter wheat may be sowed too early in the season or it may be sowed too late, so there must be a certain time, neither too early nor too late, which is the best date to put in the seed.

2. Many factors must be considered in designating the best time to sow. The condition of the soil and the exposure, the presence of the Hessian fly, etc., must all be duly considered.

3. Early seeding does not secure an early harvest. The same variety sown under the same conditions will mature about the same time, whether the seeding be done the first of September or the first of October.

4. Wheat sown as late in the season as it can be and still be given time to become firmly and strongly rooted and time to develop leaves sufficient to cover the whole ground, will best endure the winter.

5. The earliest sown wheat usually has the largest top and proportionately the smallest root; in the latest sown wheat the root is proportionately larger.

6. On poor soil and badly prepared ground the wheat should be sown earlier than upon rich soil and a well-prepared seed-bed.

6. In this latitude, the Hessian fly is not very troublesome in wheat sown later than September 25.

8. The best date for sowing winter wheat in Central Ohio is from September 10 to September 30, according to the conditions mentioned above.

THE KEYSTONE HAY-LOADER.

We published a couple of weeks since the result of C. W. Cook's experiment with this machine. This was to the effect that all things considered, it was not adapted to Montana meadows. But now comes Pauly Bros., of Jefferson county, and pronounce the loader a success. Having published one side of the question it is perfectly fair that we give the other a hearing.

BEAVER CREEK, M. T., Aug. 31.

Mess. Bennett Bros., Townsend, Genes.—We see by the *HUSBANDMAN* that the Keystone Hay-Loader is not adapted to this country; they claim that it leaves one-third. Now we used one of these loaders in just as short grass as ever grew in Montana, and after twelve loads we raked the ground over and got about half a load. They claim that it is so much expense to go over the ground after the loader. Now take in consideration of having to bunch the hay, and what the men leave on the ground after pitching out of the bunch, the loader gets away with them. We can rake the ground after the loader in less time for one load than anyone can bunch a load, for marbles. Yours Respt., PAULY BROS.

The Poultry Yard.

THREE hundred and one eggs have been produced by a single Leghorn in one year.

A WRITER recommends lime and salt, mixed with the soft feed, as an excellent remedy for chicken cholera.

THE difference between the yield of eggs in the many prolific cases, as compared with poor layers, is three or four to one.

FOWLS destroy the grass with their droppings when kept on one location for a long time, by rendering it too foul for their use.

FOWLS eat a great deal of grass, and if not provided with it will not do well. This is one cause of the general failure in keeping a large number on a small area.

WARMTH IN WINTER.

This must be carefully considered. Hen-houses are generally too big—2 1/2 square feet of floor room for each fowl is plenty. Thus a room 8x10 will accommodate twenty fowls, and one 12x20, one hundred. The fact is, it there is the right sort of ventilation, fowls can hardly be too closely crowded in winter during the night. They must have a yard, and more or less bare ground on which the sun shines. The hen-house should have a southern or southeastern exposure for its long side if possible. Thus with a yard twice as big as the house, and a warm one if possible, and a warm house at any rate, a good many hens may be wintered very well, and if properly fed and cared for, will furnish a large number of eggs.

The number of families who might keep fowls could be doubled, and the hens would prove to all who keep them properly an economy, a luxury, and a satisfaction; to many they might be a source of considerable profit.

Such flocks should be reduced to one-fourth their number just as soon as they have done laying, and the weather begins to be warm and eggs cheap. Cluckers can be quickly fattened in a fattening coop, and before they begin to lay again their heads should come off.—*Ex.*

ELEMENTS OF SUCCESS.

"Love for the work."—I don't mention this first because I think it one of the first requisites to success, but because I must say something in the subject, and I may as well say it to begin with. Many poultry-writers conscientiously believe that a genuine love for the work is absolutely necessary to success in the poultry business, but "love for the work" forms no part of my poultry creed. If the beginner in poultry-keeping can manage to get up some enthusiasm on the subject it will make the business that much pleasanter for him, but a regular run of the "chicken fever" is not one of the indispensable elements of success, as I can testify from personal experience. I have made it very profitable, but in the beginning I had no liking for the work—in fact I almost detested it until after it began to pay a pretty good profit, and the better it paid the better I liked it; and I think that if other successful poultry-keepers

were to tell the exact truth, the majority of them would tell pretty much the same story. This may sound mercenary, but I can't help that. We all work for pay in some form or other, and I know that in many things we get the pay in various ways as we go along; but when it comes to the downright drudgery connected with the care of even a moderate sized market poultry farm, let me tell you that the average mortal wants to see the pay coming, in hard cash, before he can get up any great amount of "love for the work." So, if any of my readers are so situated that poultry-keeping seems to be the only thing they can do that will bring in cash, or its equivalent, let them not be deterred from engaging in it, because their hearts are not filled to overflowing with a "genuine love for the work."

"A Determination to Succeed" is worth more to the beginner in poultry keeping than all the "love for the work" in the universe; it is the chief element of success in any undertaking. The man or woman who goes into poultry-raising, or any other business, chock full of determination to succeed, no matter what obstacle may be in the road, will succeed in the end. The magic of those two words "I will," can do anything that can be done in this world—whether in love, law, politics, religion, war, or the chicken business.

"Practical Knowledge."—The man who proposes to engage in poultry-keeping on a large scale, must, if he proposes to keep the balance on the credit side, from the beginning, acquire a practical knowledge concerning the management of fowls, before he undertakes the care of a flock numbering four or five hundred; and the very best way to get this knowledge is to buy a small flock and study them. As his stock of poultry knowledge increases, he may increase the size of his flock, until it numbers as many fowls as he can manage profitably; but he should take especial care that the increase in his flock is never out of all proportion to his gains in poultry wisdom.—*Fanny Field.*

The Household.

Roll Jelly Cake.—Take 4 eggs, 1 cup of sugar, 1 cup of flour, 1 1/2 teaspoonfuls of baking powder, a pinch of salt. This will make two cakes. Spread thin on long jelly tins. As soon as baked, turn on the jelly, flavor your jelly and spread over the cake and roll up immediately.

Johnny Cakes.—One quart of corn meal, 2 teaspoonfuls of salt, and milk enough to make a stiff batter. Shape cakes in the hand, making them an inch thick; bake on a griddle; they should be quite brown when done. Split them open and lay a lump of butter inside. Serve hot.

Green Tomato Sauce.—Take full-grown tomatoes while yet green; cut out the stems and stew until tender; press through a sieve; season highly with cayenne pepper, salt, ground cloves, allspice and nutmeg; boil the pulp until thick. Worcestershire sauce may be added if liked.

Tomato Catsup.—Boil half a bushel of perfectly ripe tomatoes until very soft. Squeeze them through a fine wire sieve; add one quart of vinegar, one half pint of salt, two tablespoonfuls of cloves, four of allspice, one of cayenne pepper, and to of black pepper. Boil three hours. Bottle without straining.

Old-fashioned Indian Pudding.—Two qts. sweet milk, one scant pint sifted corn meal. Put the meal in half the milk, put the other half on the stove and scald; then add the cold milk and meal, and let it heat so it will thicken up. Take from the stove, season with sugar or molasses, butter and salt. (The molasses will make the whey which our grandmothers used to say was all the glory of the pudding.) This made with or without eggs. If they are added, it must be left to cool more. Bake two hours in a slow oven.

Delicious Fruit Pudding.—Line a mold with slices of sponge cake; then put in a layer of fruit—raspberries, blackberries, currants, or ripe pineapple—torn into bits (rich, tart, ripe fruit is best). Put over this a layer of hot custard, then another layer of cake, and another of fruit and of custard, until the mold is full. Put away to get cold and firm, and serve when turned out of the mold with sugar and cream. For the custard, bring to boiling point in a farina kettle a pint of milk. Add an ounce and a half of dissolved gelatine, the yolks of four eggs and four ounces of sugar. When the custard has thickened—be sure it doesn't curdle—take it off the fire and stir in half a pint of cream and the juice of a lemon.