

# ROCKY MOUNTAIN HUSBANDMAN

## 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.

Wild roses unfolding, perfume our mountain dells.

The season has been dry, yet vegetation is well advanced.

GREEN fields everywhere give promise of full granaries and plenteous purses.

GRAIN fields should be irrigated thoroughly and often at this season of the year.

CONSIDERING the small amount of rain that has fallen, the grass is quite luxuriant.

AT \$5 to \$10 per ton English farmers prefer to feed potatoes to stock rather than sell them and buy oil-cake.

NOTWITHSTANDING the columns that are written every spring about the importance of getting grain in early, every June finds some field still not sown.

In the hurry to attend the farm crops the garden should not be forgotten. It will need its full share of water, and farmers should not neglect to attend to it.

TO MAKE a sure thing of farming in Montana, the ground must be plowed in the fall and seeded in the spring as soon as the frost is out sufficiently to run a harrow.

THE mistake is often made of irrigating grain too late. It should be done early in order not to keep the grain growing too late as it is liable to be caught by frost.

THE unusual dry season thus far has somewhat damaged farmers, since it has caused many to irrigate to bring up their crops, and has retarded the growth of pastures and meadows. Fortunately there was an abundance of snow last winter and there is plenty of water for irrigation. Crops will be good all the same but will require more water than last season.

SINCE our report as statistical agent, for June 1st, has been forwarded to the Department of Agriculture at Washington, returns have come in from several sections of Montana which, had they been received earlier, would have somewhat changed our report. Late sown grain has not come up as well as the early sowing, and in some fields farmers have been compelled to irrigate to bring up the grain.

THE experiments with transplanting our mountain pine and spruce trees demonstrate that they can be grown by placing them in the same position to the sun that they originally stood. If they stood where they were shaded from the sun, when transplanted they should be protected in the same manner. A considerable depth of soil about the roots should be taken up with them and they should not be set deeper in the earth than originally. Very little irrigation is needed and in no case should the water be poured around against the tree. The pines grown by Mr. Geo. Berry, of Smith river valley, were not irrigated at all, but the ground in which they were set out was tolerably moist. The great secret of his success was in protecting his trees from the sun and the heavy winds. We believe spruce pine bushes may be transplanted and grown with but little trouble along the north side of a board fence. After a couple of years the fence may be removed and the trees will not need further attention.

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"SUPPOSE," says an exchange, "you pay \$1.00 per day for help, and a good shovel costs an equal amount; but you retain the old one because you think it too good to throw away, although the man is only capable of doing three-fourths of a day's work with it. How much have you made in ten days by the saving? Suppose a new hoe costs sixty cents yet you put the same man to work with the old one with which he can do three-fourths of a day's work. How much have you saved in ten days? An old rusty hoe will quite frequently cause a difference of a fourth of our labor. There is no rule of labor or economy about a farm that pays so large a per cent. on the investment as that of taking care of, and keeping in order the tools we work with. A few minutes will suffice to clean off a hoe when we put it aside, and instead of getting heavy with rust and accumulated earth, it will get brighter and brighter with constant use and be a pleasure to handle instead of an extra burden and hindrance." This is a strong argument in favor of good implements.

### SCAB ON POTATOES.

The cause of scab on potatoes is still a mooted question. We have published many articles on the subject and seen many reasons assigned for it, but the most plausible theory that we have noticed, and the one that we were willing to accept as correct, was advanced by Phil E. Evans, of Deer Lodge county, about one year ago. This was that it was caused by a kind of worm, specimens of which were sent us. These were actually found at the mischief. But after all this, New England farmers who have made the matter a study for a little time, deny that this is the cause. We made the statement last February during the meeting of the American Agricultural Association, that Mr. Evans' theory was accepted in Montana as correct; but were assured that while the worms spoken of existed in the East and produced more or less scab, the scab produced by them was different from that generally complained of, and did comparatively little injury. We heard many theories advanced but must confess that we were as much in the dark at the close of the discussion as at the beginning. We mention this that our farmers may still be on the alert to learn what they can on the subject. Our farmers are just as intelligent as those of New England and fully as capable of making investigation in this matter. Some Eastern farmers assert that scab results from the use of a particular kind of fertilizer. In Montana we know that this is not the case. It may result from a peculiar soil, but in most instances where it occurs no fertilizer at all is used. There is a wide field here for research and we hope our farmers will keep investigating until the true cause is demonstrated beyond the possibility of a doubt.

### WHAT MAKES POTATOES SWEET?

We often find in our markets potatoes that do not cook dry and mealy but are rather soggy and sweet. This is supposed to result from two causes—too much water and early frost, not allowing the tuber to thoroughly ripen. And we believe these causes do produce this effect, yet it would seem that these are not the only causes that produce it. H. P. Armsby, of the Agricultural Experimental Station of the Wisconsin State University, who has been experimenting in the matter, says:

"Potatoes which have become sweet are commonly said to have to have been frozen. One of the first results of the investigation referred to, was that freezing does not make potatoes sweet. Hundreds of potatoes were examined, but not a single one was found to have become sweet! In these trials, however, the potatoes were frozen quickly, while in a cellar they would be likely to be subject to a low temperature for a comparatively long time before freezing. The actual conversion of the juices of a potato into ice, is always rapid when it once begins; but it has been shown that the temperature must fall five or six degrees below the freezing point of water before the solidification takes place. The difference between potatoes frozen artificially and those frozen accidentally in a cellar, then, would simply be that the latter were chilled for some time

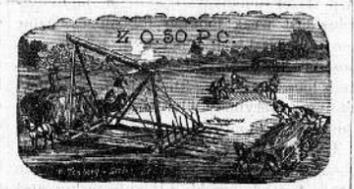
before they actually froze. This suggested the thought that it might be the chilling, and not the freezing, which made potatoes sweet. To test this, thirty tubers, as nearly alike as possible, were placed upon a table in a cellar, in February, and by occasional opening of the windows, the temperature was kept just above the point (26 to 27 degrees F.) at which potatoes freeze. Every day for two weeks two of the potatoes were tested; and from the seventh day on, the sweet taste became more and more manifest, although the potatoes never froze. In another trial potatoes were frozen rapidly and preserved for a considerable time in this state. They did not become sweet. It is plain, then, that it is chilling, just falling short of freezing, and not the freezing itself, which causes the sweet."

### IRRIGATION IN THE YEAR 1900.

I have been thinking lately that in less than in twenty years we, of the prairies, will hardly attempt fruit growing—or at least will not succeed in the business—without the assistance of irrigation. That is, if we plant an orchard, we shall take care at the same time that it shall not suffer, as many, if not most orchards do now, for want of water.

Some of the reasons which have led me to take this view, I have found in the columns of the *Prairie Farmer* and other papers of recognized authority. As for example, on page 294 current volume, Mr. Arthur Bryant says: "So many of the early orchards are failing, we must plant new ones to keep up a supply of fruit. If possible, plant trees on new ground, where none have grown before. I can not believe orchards are to be always as unhealthy as of late years." Here is a comprehensive statement of the failure of orchards, and, incidentally, an acknowledgement that the old methods will not serve for the new times, and therefore we must make some new departures.

In the *Rural New Yorker*, of a late date, I notice a quotation from Prof. R. C. Kedzie, of the Michigan Agricultural College, to this effect: "The fact is we are grossly ignorant of the first principles of plant



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growth." This explains why it is with orchards on high land, having starved to death for the want of nutrition in liquid form, we fail to perceive the truth through our gross ignorance of the first principles of plant-growth." But we shall get at the facts in the course of fifteen or twenty years, and then we shall provide against our fruit trees dying of thirst.

In Florida they have taken a step in the right direction, according to the testimony of a correspondent of the *Home and Farm*. Referring to the present drought prevailing there, the writer says: "A continuation of drouth such as this, will force our people to a system of irrigation—and the sooner the better. The benefit of water to orange trees is no longer a matter of doubt, or experiment. It is an established certainty. There are many trees of remarkable growth which either from their chance situation, or from special application, have received an abundant supply of water, and which offer the best examples of what may possibly be accomplished in this direction."

What fruit-growers South have observed of the orange, Northern orchardists will observe of the apple and other fruits, and where the fact is generally recognized that orchards are fruitful very much in proportion to the water supply, means will be taken to furnish it in one way or another.

Referring further to the state of orange groves in Florida, an intelligent gentleman just returned from a trip as far south as Lake Kissimmee, reports the drought very severe and the orange crop very light, and even in some cases falling from the trees—except in groves which have been irrigated; there the trees are loaded and will require thinning. Sooner or later we shall learn apple or pear trees need as much water while fruiting as an orange tree in the same State; this and the other facts will bring in irrigation in the year 1900 or before. —*Cor Prairie Farmer.*

### BEET SUGAR.

The unfortunate results, financially, of all attempts to make beet sugar in this country hitherto, have only shown that the conditions are far different from those in France, Belgium and Germany, where the sugar beet is one of the chief crops of the dairy farmer, and a source of great profit to the people, large quantities of sugar being exported to England. We have proved that we can grow beets here as rich in sugar as those grown abroad; that the soil and climate are well adapted to the crop; but we still fail to grow beets at a price that allows of their being profitably made into sugar. Doubtless the chief reason for this is to be found in the high price paid for labor in this country, as compared with Europe, and also to the difficulty in this country in inducing women and children to weed and thin beds at any price, whereas in Europe this part of the work is well and cheaply done by them. German lads and girls cheerfully and faithfully work on their hands and knees in the broiling sun of midsummer, while ours prefer to ride bicycles, play base ball, or lawn tennis; we don't know much about downright hardships in this country, and we ought to be thankful that we do not. —*New England Farmer.*

### POTATOES "MIXING" IN THE HILL.

The *Rural New Yorker* receives every year, many letters opposing its view, that potatoes cannot "mix in the hill." Upon the same plot we have raised potatoes for five years. Had we not planted a potato this season on this plot, a very fair stand would have been obtained from volunteers, or those overlooked potatoes which remained in the ground during the winter, and which were among the first to sprout this spring. We have known the tubers of one kind to form in the next row three feet or more from their own plant or hill. Had this not been known, we might have taken the view of some of our friends, that there was a case of potatoes mixing. Very rarely, indeed, but sometimes, the buds of potatoes do vary from the usual form, color and quality of the parent seed. Thus we have the Late from the Early Rose; the Late from the Early Snowflake; the Variegated-foliated Rose from the Early Rose, and so on. But this is not "mixing in the hill."

From what we know of vegetable physiology, it is just as reasonable to suppose that a Bartlett Pear bud inserted under the bark of a Seckle, would not produce Bartlett Pears, as that two kinds of potatoes planted together would "mix in the hill."

We have recently received a new kind of potato, claimed to have been produced by inserting the eye of one variety into another potato, which is quite as absurd. New varieties cannot be produced by grafting or by contact, or in any other way except by planting seed—the true seed from the ball, which is the fruit of the potato plant. —*Rural New Yorker.*

## The Poultry Yard.

FOWLS are very fond of milk, and thrive well upon it. Sour milk will bring better returns in eggs than in any other way it can be fed.

THE dust heap is absolutely necessary for fowls. It cleanses their feathers and skin from vermin and impurities, promotes the cuticular or skin secretions, and is materially instrumental in preserving their health.

You cannot make your fowls fat by keeping grain before them all the time, so well as by supplying just enough for them to eat up clean and no more. Among the requisites in the fattening of fowls are a dry place and seclusion. Quiet and the admission of light promote the formation of fat. We would give an allowance of easily digested food three times a day at regular intervals, and remove at once all that is not eaten, taking care that there is a chance for each individual member of the flock at the feeding trough, so that each may have a full share.

SUCCESSFUL poultry fanciers set their hens in the evening after dark instead of by daylight. They are much more apt to "stick." The lantern is a very useful thing in the poultry keeper's hands. There is much that can be done about the fowl house, and much that can be learned by lantern light. You can frequently catch fowls to examine them for any desired purpose when they are on the roost, even if they are not very tame; whereas in the day-

time it may be difficult to catch them singly and to examine into their condition without causing them a great deal of fright; and fright, you know, is antagonistic to thrift.

### RENOVATE THE POULTRY HOUSE.

The poultry house should be put in thorough order without delay. If not attended to at once, it will soon be infested with myriads of vermin, which if not destroyed, will soon have full possession. One of the easiest and most effectual methods to get rid of such vermin is to fight it with strong lime whitewash. Take down the roost poles and nest boxes, remove the straw and trash from the latter and burn it. Thoroughly whitewash the roost poles as well as the nest boxes, and fill every crack and corner with the wash. Dust off the plates, walls and sills and clean out the house thoroughly, and then give it a thorough whitewashing from top to bottom. Don't be afraid of spreading it on too thick, but fill every crack and corner where vermin may find a hiding or breeding place. Whitewash is cheap and all can afford to use it liberally. As well as a great vermin destroyer it is a great disinfectant and we need not be afraid of too much dripping upon the floor of the poultry house. After the whitewashing is done the floor should be thoroughly sprinkled with slacked lime to disinfect the floor or ground of all obnoxious gases and impurities absorbed from the poultry manure. The floors should be regularly kept clean, and to facilitate this a sprinkling of dry sand or leached ashes will be found economical and cheap. These scrapings will furnish an excellent compost for the garden. —*North-western Farmer and Dairyman.*

## The Household.

**Moonshine.**—Beat the whites of two eggs very light, sweeten to taste, then stir in two thin sliced oranges or any kind of fruit. Make it just before eating it, and you will have quite a handsome or delicious dish for supper.

**Onion Greens.**—Cut up a handful of young onions, tops and all, into small pieces; add a little salt and water and fry in butter or bacon drippings until well wadded and tender and serve while warm, with good cider vinegar.

**Ginger Bread.**—One-half cup of shortening, one-half cup of sugar, one-half cup of molasses, one-half cup of hot water, one-half teaspoonful of ginger, one teaspoonful of saleratus. Stir not very thick, and bake in a dripping-pan.

**For Breakfast.**—Salt mackerel is good if nicely cooked. After freshening it wrap it in a cloth and let it cook slowly for twenty-five minutes. Steaming is preferable to boiling. At the end of this time remove it to a hot platter, garnish it with hard-boiled eggs, cut in four pieces. Pour a little cream with pepper in it over the mackerel.

**Cream Fudding.**—One quart of milk, four eggs, four tablespoonfuls of flour. Mix the flour with a little milk, then add the eggs, beaten well, and flavor to taste. Pour this into the rest of the milk which must be boiling, cook a few moments, pour into a dish, sprinkle over the top five tablespoonfuls sugar, and cover tightly until dissolved. Serve while quite warm.

**Delightful Thin Biscuits.**—Beat very light one egg; pour it over a plate of flour; add a wine-glass of milk, and chop in one tablespoonful of lard and butter mixed. Work thoroughly together. Break off pieces the size of marbles, which must be rolled as thin as your nail, sprinkling with dry flour as they are rolled, to make them crisp. Stick with a fork and bake quickly.

**Corn Bread.**—Add to five well beaten eggs half a pint of milk and one quart of sifted meal in which a piece of lard as big as a walnut has been rubbed; stir, in half a pint of sour cream, half a tablespoonful of saleratus, and add. It should be of the consistency of fritter-batter, and if thicker, more milk must be added. Put in a tablespoonful of salt, and pour into well-greased pans, baking in a moderate oven.

**Cookies.**—These cookies keep indefinitely, and are always good neither crisp nor moist: Two eggs, one cupful each of butter and sugar, one teaspoonful of saleratus, one and a quarter teaspoonfuls of cream of tartar. Flavor with lemon. By taking the same amount of butter, sugar, saleratus and cream of tartar, one egg, one-third cupful of baking molasses, and one tablespoonful of ginger, excellent ginger-cookies are made. Roll rather thin, cut in fanciful shapes, and keep on hand.