



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.

DO NOT let the fields suffer for water now.

It is not yet too late to sow seed for late radishes.

ANY crop will flourish better if irrigated between sunset and sunrise.

FREQUENT tillage is essential to success in the garden as manure, and in many cases even more so.

EVERY fruit shrub or plant has its enemies, yet every enemy may be conquered by diligence and care.

TO HAVE vegetables nice and tender it is necessary that the soil should be rich, and irrigate every day or two.

The easiest way to dispose of currant worms is to cut the branch about which the web is woven and burn them.

WATER should be used freely now and the fields wet thoroughly as it will begin to get less abundant in a few weeks, and fields not wet now are liable to suffer.

Old fruit cans with the bottoms cut out make a good protection for cabbage plants against cut worms. We can suggest no more effective barrier against these pests.

A CORRESPONDENT from Washington county, Utah, writes to the *American Gardener*: "Our winters are so severe and long that few flowers can be grown here. We are not free from frosts until near the middle of June, and they return again at the end of August. What little summer we have is very hot, and nothing can be grown without watering." Different here.

THERE is something remarkably strange in regard to the winter wheat belt. In New York, Pennsylvania, Ohio, Indiana and Michigan, and in Canada, winter wheat is successfully raised in all latitudes up to 42 degrees, or even 43 degrees, or to the northern limits of the States where they do not reach 42 degrees. But as soon as you go west of the western line of Indiana, the northern line of the winter wheat belt suddenly drops south to 40 degrees, and no winter wheat of any account is raised north of that latitude, (the latitude of Springfield, Illinois, and of the northern line of Kansas) till you reach the base of the Rocky Mountains.

PARKER EARLE, the well known fruit grower of Illinois, believes that the soil on which strawberries grow has much to do with their shipping qualities. His experience teaches him that berries grown on poor, sandy soil will hardly endure shipping one hundred miles, while the same variety of berries on stronger, better land possesses great shipping capability. He also calls attention to the fact that purchasers, as a rule, pay more for berries of attractive appearance than for flavor, an illustration of which is the Monarch, of high flavor but poor color, which is rejected for Wilson or Capt. Jack, both sour but well colored.

A CORRESPONDENT of the *New York Tribune*, who succeeded in raising splendid cauliflowers last season, gives his method as follows: "I spaded very deeply a deep, rich piece of ground, inclining to moisture, and turned in all the rich old rotted manure I could well use. The plants were set out May 1, after being wintered in cold frames. When the weather became dry, I occasionally poured on each plant a little diluted manure water, so that by late summer the heads began to form, and finer heads I never saw. They headed successively until freezing weather. As soon as the white flower-buds, or crown, showed, the leaves were immediately drawn over them and loosely tied, thus preserving the milk-white color and tender texture. Cauliflowers delight in a deep, rich soil."

OATS GROWING.

It is believed that each year oat meal is becoming more and more in use as an article of food. In Europe Scotland has for many years led in the production of this cereal as to quality. In consequence of this that country has led all others in the manufacture of oat meal. In 1876, at the Centennial Exhibition, a spirited contest arose between Scotland and America as regards the quality of their oat meal. Several of the States, among them Oregon, a place situated away out of the world on the North Pacific Coast, between the 42d and 46.20 north latitude, came in as a competitor. Upon the first examining contest all other of the United States withdrew in favor of Oregon oats, leaving her to compete with the supposed invincible Scotland. After three tests, to-wit: bread, mush and analysis, Oregon was pronounced the winner, and McLearn Bros., millers in this city, (Portland), now have the Centennial medals hanging up in their office.

Heretofore the machinery for making oat meal has been quite insufficient, and in consequence of this our meal has not been such as would command the best prices in foreign markets. Now, however, some of our millers have arranged to put in operation the most approved machinery, and the same is on the way here. Among the number is Mr. Milne, of Hillsboro, himself a Scotchman and practical oat meal miller. Should Mr. Milne succeed, and we have no fear as to that, an article of meal will be made here that will supersede all other countries. Why not? If our oats are 15 per cent. better than those grown anywhere else, we can, assuredly, make, with the best machinery, a superior article, and it will find sale. If such encouragement is given this subject as its importance deserves, who knows but what oats will in a short time become our main crop in place of wheat.—*North Pacific Rural Spirit.*

SCIENCE AND FARMING.

The greatest obstacle in the way of man's improvement and the most difficult to overcome, has been ignorance. Placed here at the beginning with no experience, and totally without knowledge of the laws which governed nature in the growth, perfection and decay of vegetable and animal life—in fact, totally ignorant of the laws which governed his own existence, he was like a man in the dark; he groped about, stumbling and falling many times before he learned the roads that were safe and practicable. To-day, even with all our advancement, the "don't know" of our farmers alone, costs the country much more than would support all the educational institutions in existence. Knowledge adds so much to the power and efficiency of its possessor, and elevates him so much, that ignorance is always suspicious and jealous of it, and of its possessor; and for this reason there is always a prejudice in the common mind against so-called science, and especially is this the case among farmers. Not very long since, to call a man a scientific farmer, was at once to make him the butt of all the jokes of the neighborhood, and to set all eyes watching, in hopes he might make some failure. This is a grave mistake, for there is no one more dependent for success upon science and scientific practices, than the tiller of the soil.

Nature has certain fixed and immutable laws that regulate and control all the operations, as well as the growth and development of the tiniest seed into the living plant, and this to its full maturity and the production again of its seed, as of the creation and movements of the planetary system. Would the farmer achieve the greatest success, he must work in unison with,

not antagonistic to these laws. The study and investigation of these laws as they relate to agriculture, and the application of the knowledge so obtained to its practical operations, is science, and that is all there is of scientific farming. We can not see anything in this that should frighten or antagonize the farmer; but, on the contrary, it is the greatest incentive for him to become a student of the science of agriculture, and of all science that in any way relates to it.

For the sake of convenience, we talk of the science of chemistry, of botany, etc; but these are only names of different branches of science, and these are each and all useful to the farmer in many ways, in which they enable him to better know Nature's laws. For instance, chemistry seeks to know the cause of things by tearing down or pulling apart; if a field fails to produce a satisfactory crop of wheat, chemistry would take the soil and pull it apart by analysis, to ascertain what it contains; it takes the wheat plant, and pulling leaf, stem and grain apart, it ascertains of what each is composed. In other words, it asks the wheat what it needs and must have in order to produce the best crops. It asks the soil what it has in its store-house and within the reach of the growing plant, which it will contribute to its use, and by comparing their answers, it is enabled to tell the farmers what the wheat plant must have, what the soil will contribute, and what he must supply, in order to grow crops that shall be remunerative. We follow these instructions and carefully watch results, and when the results corroborate the teachings of chemistry, we call it an agricultural fact, and carefully record it, and records of all these facts form our text-books, and are the admitted laws of science. Through our imperfect knowledge and methods, we sometimes mistake these teachings, and guess at the results, and call a fact established, and in our haste proclaim it as a scientific principle, when it is only guess-work, thus bringing ridicule and disrepute upon science, when the error is chargeable only to our ignorance, as, for instance, the theory once universally taught that the earth was the stationary center of the universe. Increasing knowledge showed this not to be true, neither was it scientific, but only a blunder of ignorance. Science is knowledge; the correct interpretation of Nature's laws; and of course, it is always true, reasonable, fixed, immutable. It is only our ignorance that causes us to mistake its teachings, or which prevents us from correctly translating its language.

The same power, based on the same scientific principle, was hidden in the union of heat and water, since the foundation of the universe; but man went on in ignorance unassisted by this mighty power, until Watt complied with the scientific law which enabled him to apply and control this power in the construction of the steam engine. The same law governing the development and improvement of plants and animals, have always existed, and yet it is only very recently that man has understood and taken advantage of them, and we already see wonderful results. Surely anyone so dependent on Nature's laws for his complete success as the farmer, cannot afford to be ignorant of them, and the more perfectly he understands and complies with them, the greater will be his success.

We may call it gumption, shrewdness, luck, or by any other name, the success of the successful farmer is attained by a compliance with the scientific principles of agriculture, and by this means only, and the better these are understood and the more closely they are followed, the greater will be his success. Then we say, that if these can be more quickly and perfectly learned from the text books than from long and costly experience, by all means study the books. Science and farming go well together, and we cannot well have too much of the true science in our farming.—*Rural New Yorker.*

CROP CONDITIONS AND PROSPECTS.

Telegraphic summaries, June 11th, from the Department of Agriculture at Washington, present the following in regard to the acreage, condition, and prospects of cotton, wheat, oats, rye and barley. Southern correspondents generally claim a somewhat broader area in cotton, but in the Southwest rain interfered with planting, and in Louisiana cold weather retarded it. The apparent general increase is about 4 per cent. The per centage of area in cotton this year, as with the crop of 1883, by States, is thus expressed: Virginia, 83; North Carolina, 101; South Carolina, 106; Georgia, 103; Florida,

104; Alabama, 105; Mississippi, 105; Louisiana, 99; Texas, 105; Arkansas, 106; Tennessee, 101; Missouri, 80.

The increase in the acreage of spring wheat is about 9 per cent., or 900,000 acres over last year. The largest advance is in Dakota, amounting to some 400,000 acres. The average condition of the crop, the country over, is 101. [In some of the more Western States, farmers have partially given up spring wheat growing, for corn and other crops. But in these States the largely increased area brought under general cultivation by new settlers, has more than made up the decreased area in spring wheat on the older farms.—*Ed. Prairie Farmer.*] Winter wheat holds its own at 93 per cent. against 75 per cent. in June last year, and 99 in 1882. The average condition of the principal States, is: New York, 98; Pennsylvania, 100; Maryland, 99; Georgia, 93; Texas, 98; Kentucky, 96; Ohio, 82; Michigan, 91; Indiana, 91; Illinois, 76; Missouri, 90. The area in oats has increased about 4 per cent., with an average condition of 98 against 96 last year and 101 in 1882. The crop promises best in the States north of the 40th parallel, all the Western States coming up to the standard. The general condition of rye has advanced 1 per cent., now standing at 97. Barley has fallen off 3 per cent. in condition, now being 98 against 97 last June, and 91 the same month in 1882. It is 97 in New York, 90 in Pennsylvania, 101 in Wisconsin, 100 in Minnesota, 97 in Iowa, 100 in Nebraska, and 90 in California. These States usually produce four-fifths of this crop.

The Poultry Yard.

TO BREAK UP A SITTER.

The "high art" is studied by men, women and children the country over, during the spring and summer. Each one has a different method, and the results vary in success according to the common sense that enters into the business. One says, "duck her;" another says, "give her a throw," and a third, "tie her to a stick near the barn walk, and scare her up every time you pass!" This last plan caps the climax!

Now let us say right here: never under any consideration scare your fowls, even should they be found in the flower bed, for fowls and flowers should be kept separate to begin with, and always treat your birds gently. We never are cured of our odd ways by any quick methods.

All that is needed is imprisonment in a strange place. A few days' rest in this way does the fowl good, and she will return to her laying greatly benefited. Bear in mind that this is an effort at reproduction, and this very obstinacy marks a first-class sitter which you prized so highly early in the season. Besides, the rough treatment is liable to cause permanent injury, and the disabling of even one choice fowl will make a difference in receipts, and should make a difference in your feelings that outweighs all pecuniary considerations, if you are fit to own a domestic animal of any kind.—*Poultry World.*

DISINFECTANT FOR CHOLERA.

Chicken cholera is a disease to be dreaded and needs a prompt remedy. Disinfecting the fowl house is the first thing to be done. Pure air, pure water, clean premises (in doors and out,) whitewash, copperas water—every disinfectant and cleaning preparation must be used without stint. Fresh green food must be given regularly; and, as the presence of undue acidity in the system predisposes to contagious disease, tartarized soda, or chlorate of ammonia, in small doses, should be given in the drinking water almost constantly. Where symptoms of cholera are unmistakable, the following remedy is recommended by good judges:

- Laudanum.....10 drops.
- Gum Camphor 1 gr.
- Cayenne.....2 drops.
- Rhubarb.....5 grs.

Administer every three hours. A few drops of brandy, as tonic, may be given between the other doses, mixed with a teaspoonful of clear water.

Taken early, and treated vigorously, it is sometimes possible to save half the fowls attacked, but only prompt measures can avail in a disease which often runs its course in from twelve to thirty-six hours.

We give a recipe or another mixture which is cheap, effectual and easily applied: eight or ten pounds of sulphate of iron, dissolved in two pails of water, add half pint crude carbonic acid, stir the mixture briskly,

and sprinkle perches, nests and runs thoroughly every day, until the disease disappears.

To disinfect the ground where the spores may be lurking, or where any excrement from birds affected may have been left, crude petroleum or coal tar is cheap and effectual. Should the disease have obtained a firm hold, it is best to paint the inside of the house with this material.

Use all caution, in the way of cleanliness, in and about houses and grounds. Disease of any kind finds its ally in filth and waste. Clean up, inside and out, every day if necessary.—*Poultry World.*

The Household.

White Muffins.—Delicate white muffins are made of one cup of sweet milk, the well beaten whites of two eggs, 2½ cups of flour, one heaping teaspoonful of baking powder, a piece of butter the size of an egg. Bake in a quick oven.

Mock Cream Pie.—Mock cream pie is made by beating half a cup of butter until it is foamy, then add two-thirds of a cup of sugar, the yolks of three eggs, well beaten, and flavor with lemon or vanilla. Make a crust for the bottom of the pie; fill and bake in a quick oven. When done make a meringue of the whites of the eggs and two tablespoonfuls of powdered sugar. Brown delicately, and send to the table while hot.

Lemon Butter.—Lemon butter for filling tarts is made of one cup of white sugar, three eggs, butter the size of half an egg, the juice and rind of one large lemon. Put this, after beating it well, into a bright tin and set into a can of boiling water. Stir it constantly until it is thick. Small cakes are nice split and put together with this jelly. It is also very nice as a filling for a layer cake.

Suet Pudding.—Take equal quantities of fine flour and suet, remove all skin from the suet, slice it very thin, and then chop it quite fine, mix together, and moisten with cold water; add a very little salt, knead it well, and roll it out quite thin (about one-sixth of an inch.) Spread the paste equally over with any kind of jam to within half an inch of the edge, moisten the edges with water, roll up the pudding, pinch the edges together; put it into a cloth, which must be tied at both ends. Put the pudding into boiling water, and boil about two hours.

Delicate Cookies.—Cookies that are as nice as cake and that will keep well are not often made. Follow these directions and you succeed in having them. Take half a pound of butter and half a pound of sugar; beat these together until they are as light as butter and sugar can be; then beat three eggs very light also, the whites and yolks together; then mix them with the butter and sugar, add one cup of flour, and beat a long time. Observe that there is no baking powder, or soda, or milk used. Knead in flour enough to make a dough that you can roll out, like common cookies. Season with coconut or with caraway seeds; roll them neither very thick nor thin, and bake in a quick oven. They look nice cut with a diamond-shaped cutter, and with the caraway seeds on top.

Hygienic Strawberry Shortcake.—Three cups of white and sifted Graham flour, mixed, and one and a-half teaspoonfuls baking powder; one cup of sweet cream; two quarts of strawberries; time, thirty to forty minutes. If the berries must be washed, do it quickly through a colander and about an hour before they are wanted. If not perfectly ripe sprinkle a little sugar over them, and chop them a little with a silver knife. Thoroughly mix the flours and baking powder; wet with the cream and mix with the finger tips, forming rather a firm dough; pour slowly and mix fast. If the cream is poured in too rapidly or the stirring done so slowly as to form little puddles in the flour, the cake will be tough. Mix very lightly, using only pressure enough to make the dough adhere. Do not knead, but roll out light to the thickness of half an inch; prick well with a fork and bake the specified time in a moderate oven. When done, cool it by leaning edgewise, until it can be handled comfortably. Split carefully in halves, by first dividing the crust at its edge with a knife, and then taking a fork and separating the cake as nearly through the middle as possible. Lay these each on a plate, the crust downward, and put on the prepared fruit; then lay the one-half on top of the other, and after it stands half an hour serve. This can be baked in two small pie-pans or in a large oval cake dish. If cream cannot be had, use piece of butter the size of an egg.