



**Rocky Mountain Husbandman.**

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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.**

STRAWBERRIES and other small plants should be well irrigated after planting.

THE outlook for wheat in Ohio is reported poorer than it has been for the past eight years.

FOR planting potatoes the ground should be plowed deep and thrown into ridges 2 1/2 feet apart.

GRAPE vines should be trimmed before the sap begins to rise, else they will bleed to their great injury.

PEAS make excellent feed for hogs. Sow plenty of them and raise your own pork. You can make bacon far cheaper and better than any ever brought from the east.

THE Massachusetts Legislature have been discussing a bill for the encouragement of sugar-beet growing. A bonus of \$1 a ton will evidently be a stimulus worthy of consideration.

WHEN the days are sunny and warm there is little danger of irrigating young, newly-planted trees and shrubs too much. But if the weather is cold the water should be used more sparingly.

IN irrigating fruit trees and shrubs do not flood them. Turn the water into trenches so it will run close to them and saturate the ground without standing in pools around the trees.

THE main ditches on the farm should be of even grade, and the smaller ditches or furrows for leading water should run in such a manner that the running water will not wash them into trenches. A little painstaking when laying them often will save much trouble at harvest time.

S. W. TALMIDGE, of the Milwaukee Chamber of Commerce, who has been making a specialty of collecting grain statistics, thinks the report of the Commissioner of Agriculture for May, which will be issued this week, will show no improvement over the month of April. Eight of the largest wheat raising States show a decrease of eight per cent.

WE do not recommend the burning of meadows or grass lands, as it is very injurious to the grass. It takes from two to three years for prairie lands, after having been burned, to fully recover. Meadows that were mown last year should not be burned, and where not mown last year and the dry grass is not too long it is better to have it untouched. Where the dry grass is very long and will be a serious hindrance to the sickle, it will of course have to be burned

over. We have seen this done very successfully by first irrigating the land sufficiently to dampen the grass just over the ground, then set fire and burn off the dry top of the grass. This worked well where the land was level, as the fire did not scorch the grass roots.

**RUSSIAN FRUITS.**

We are indebted to Charles Gibb, of Abbottsford, Quebec, for a copy of his report on Russian Fruits, the results of observations in company with Professor Budd, of Iowa, through a large portion of Russia for the express purpose of examining its fruits in their home locations, with a view to selecting those which promise success and value in Canada, and in the more northern and the northwestern regions of the United States, where many of our fine varieties will not endure the winters. Prof. Budd has given special attention to the cultivation of a large number of Russian apples imported in years past, and planted in the grounds of the State Agricultural College at Ames, Ia. But, as his report states, they found great confusion—"hopeless confusion," as they state—in the nomenclature of Russian fruits and it became important to see them growing and bearing, and to make selections of those which promised to be valuable, and which could not be otherwise be obtained. There is no question that the varieties of the apple which endure a cold in Russia sometimes as low as 40 or 50 degrees below zero of Fahrenheit, will withstand any cold we have here; but the quality can be determined only by giving them a trial. There are some sorts named in the report for their excellence, which may drop a notch or two lower on being tested with us, as it is difficult to pronounce distinctly on the precise degree of quality entirely away from standard sorts for comparison. We may cite by way of illustration of this point, the great interest with which we once tasted the first ripening bunch of a native grape found on the Rocky mountains by Long's expedition, and which the weary and hungry travelers thought the most delicious they had ever seen, not even excepting the finest hot-house grapes. Instead of corroborating their opinion, we found this grape sour, astringent, bitter, and unpalatable—being examined under very different circumstances. In the pomological skill of Messrs. Gibb and Budd, however, we should have much confidence, and do not suppose their opinions to be greatly out of the way.

The report notices and describes thirty-five varieties of Russian apples which they saw and examined, some of them of much promise, and largely and widely cultivated for market, of several of which outline figures are given; and fourteen additional sorts found in Germany are noticed. Of pears, eighteen varieties are noticed, and several of plums and cherries. Possibly among all these fruits we may obtain something specially valuable for our extreme northern limits, although we hardly expect to meet with anything which shall supersede the old and well-known Russian varieties, such as the Duchess of Oldenburg, Tetolsky, and Alexander. But additional varieties, equal to these in value, would be of great importance in those regions where the standard sorts, which succeed only in the milder portions of the Northern States, cannot be grown, and Messrs. Gibb and Budd have doubtless conferred a great benefit by their laborious explorations.

**EVERYBODY CAN GRAFT.**

Grafting is not a monopoly of gitted minds or an art that can only be acquired by the few. With the ordinary amount of "gumption" to begin with, followed by careful teaching for only a short time, almost any one can graft successfully. Grafting is simply planting a cutting of one variety in the wood of another. Instead of in the soil. It is essential that the growing layer of the cion and stock come in close contact, and be so held until they grow together. Now is the time to get the cions. They may be bought at most nurseries, and great care should be taken to get only the best varieties. If cut at home be equally careful to get them of them of the right kind, cutting only twigs of last season's growth. A fine

saw, two knives, one strong and heavy, the other smaller, with a keen edge, a hardwood wedge, six inches long and half inch thick, and a small mallet are the implements used in grafting. The wax may be easily made by melting together beeswax, six ounces, resin and tallow, four ounces each, over a moderate fire, stirring gradually until all is melted. Rolls of waxed cloth may be formed of old cotton stuff made thin by wear, and torn into strips two inches wide. Wind the strips upon a stick and dip them into the melted wax; remove, let drip, and put away from dust until ready for use.

Grafting should be done as soon as the buds begin to swell. Having determined upon the place for the graft, saw off the branch, smooth the cut surface and make a cleft with the knife and mallet. Cut the cion from the twig, leaving two or three buds upon the piece, and sharpen the lower end into a wedge. Open the cleft with the knife and place the cion in carefully, so that the lower bud comes at the top of the cleft. The inner bark or growing layer of the cion and the stock should touch as much as possible.

If the grafted branch is small, a single cion is enough; otherwise, put in one on each side. Unroll enough waxed cloth to cover both stocks and cions, and press it on carefully and closely. The quick application of this protection is only a matter of practice. It is well for beginners to start with worthless limbs before doing regular grafting in the orchard. If possible, find some one in the neighborhood familiar with the process and learn the art from him. The general principles may be obtained from printed directions, but the success of the work will depend upon the knack, and that is only acquired in the orchard.—Exchange.

**GRAPE GROWING IN THE UNITED STATES.**

The following notice of the number of acres under cultivation to grapes, and the quantity of wine manufactured therefrom, will give our readers some idea of the rapid growth which this industry has already made. The Florida Dispatch says:

From statistics recently published by the Department of Agriculture at Washington, we learn that there are now 195,583 acres of grapes grown in the United States. Wine from the product of these vines, is made to the amount of 24,453,857 gallons, having a market value of \$13,436,174.87. California, of course, leads, having one-sixth of the area, yielding nearly two-thirds of the wine. New York comes next, having 12,643 acres, though but little is made into wine; the grapes find ready sale in the market; only 584,148 gallons are made. Rhode Island only fifty-five acres; while Illinois, from 3,810 acres, makes over a million gallons of wine. Missouri, Ohio, Georgia, and New Mexico are leading wine making sections. Colorado cuts no figure at all in the report, but the day is coming when grape culture will be one of their most prominent industries.

**The Poultry Yard.**

FEEDING grain to fowls is a good way of marketing it at a good price.

POTTLRY raisers, who have followed our suggestion to give hens that set early only from ten to twelve eggs, are much pleased with the project and say that it pays—that it is better to make certain of ten chicks than take chances on not getting any.

**GAPES IN CHICKENS.**

It is much easier to avoid than to cure a case of gapes. When it is first discovered, the patient is too far gone for any assistance. The outward symptoms are an extending of the neck with wide open bills, a gasp for breath, and when a chick does nothing else all day it will surely die. People at the north have learned to dread this disease for they have contended with it for years. It annually sweeps away the young chicks at an alarming rate. Poultry raisers have also in a measure learned how to manage it. Early chicks are not so much afflicted by it, from the very reason of their having better

food and care. Herein lies the secret. The strength is increased, the growth promoted, and the little things outgrow it. The distemper is always present at certain ages, but stimulating, heat-producing food masters it and keeps it down, and it is not discovered. The chick has it, nevertheless, and passes through it without manifesting any sign, for the strength has been kept up.

Wet, sloppy food is sure to reduce the strength, and the birds sicken of it, refuse to eat, and the distemper has its course. There is no remedy or cure after the fowl is reduced to this extent. There are methods by which the worms may be taken from the throat, but the chick is likely to die under the operation, or become a poor fowl, hardly worth the raising. Fowls have gizzards which grind their food. The sooner young chicks are put on whole grain, either wheat or buckwheat, the better. Young chicks should not be allowed to run all day and reduce their strength by fatigue, but should be kept quiet, well fed, and watered, dry and warm. Then they make rapid and strong growths, and distempers pass over and make no sign.

The gapes are caused by clusters of worms in the windpipe of the chick. These worms are red and wiry. They float in a nest of bloody froth, and the fowl receives no damage whatever in their passage out of the body, if not reduced in strength, or contracting a heavy cold, in which case the extraneous matter becomes hard and tough, adheres to the walls of the throat, and can not be passed or snapped out, although the fowl sneezes and coughs severely. The worms get there in the same way as worms get into the stomach and intestines of the human child. The food cannot create them in the throat of the chick. The windpipe leads directly to the lungs. Through this tube the air is inhaled with every breath. Anything that impedes the progress of this breath endangers the life. These worms, I believe, are gathered from impurities of the blood in the lungs; are thrown out through the windpipe, and finally disposed of through the intestines.

Even the birds of the air are not exempt. It is never made manifest or discovered until the fowl receives a check to the strength, by over-fatigue, scant, irregular or improper food, lack of sufficient drink, exposure to dampness or cold, and close breeding. In rapid growths this bad blood is discharged without injury to the strong chicks, and there are no signs of disease. This is all the remedy or cure for the gapes known to the fraternity. Early chicks receive better care and food and warmer quarters. They are also kept from dampness, and have more quiet. This is the grand secret of their escape, and the greater success of their raiser.

**EARLY HATCHING.**

H. S. Waldo, in the Farm, Herd and Home, says:

Pullets hatched in early spring are the most valuable both to the fancier and the average farmer, for which good care and judicious feeding they will commence to lay as soon as October or November, and perhaps before. Now, in this way they get the "drop" on winter, by having commenced to lay before winter has fairly set in, and will continue to lay throughout the winter, when eggs are worth about three times as much as they are at any other time of the year, provided they have a warm shelter from winter's cold.

Then, too, when early setting time comes again the next spring, they will have laid several litters of eggs, and if mated to a good healthy cock, the eggs will be as desirable for breeding purposes as if they came from adult hens, whereas pullets hatched late in the season are about as good as worthless as breeders next spring, for they will be small when winter sets in, and they will be stunted by cold weather, and when setting time comes in the spring they will only have commenced laying, and the eggs will be almost worthless for hatching purposes, and if they hatch at all the chicks are liable to be weakly, and not strong and lively as they would be if coming from older hens.

**CHICKEN CHOLERA.**

I finally used a strong tea made of white oak bark, which I used in the drinking water as a preventive. When a fowl was taken sick I used it pure, giving several teaspoonfuls at a time, four or five times a day. I have taken fowls so far gone that they were past eating and drinking and cured them in a few days with this simple remedy. As a disinfectant I use crude carbolic acid, pouring it on boards in the chicken house and on the perches, coops, &c., or anywhere the fowls frequent.—Country Gentleman.

**The Household.**

Boil a teaspoonful of rice in some good stock, and pound it in a mortar with an onion that has been cooked in butter, with salt and pepper. Pound separately in equal portions cold ham and chicken, form this into cutlets; cover them with eggs and bread crumbs, and fry. Serve with a sharp sauce.

Poor Man's Cake.—One cupful of sugar, one tablespoonful of melted butter, one cupful of milk, two cupfuls and a half of flour, and a teaspoonful of baking powder, and a little cinnamon or nutmeg, and one small tablespoonful of corn starch. This will be found to be a very nice plain cake if eaten while fresh.

Veal Loaf.—Take two pounds of cold roast veal chopped fine; three eggs well beaten; three or four butter crackers rolled fine; two tablespoonfuls of oil of milk; one teaspoonful of salt; a little cayenne pepper; one tablespoonful of powdered sage; mix well together; add bits of butter; form into a loaf, cover with beaten egg, and bake one and a half hours, basting often.

Roll-Jell Cake.—One cup of sugar; one cup of flour, with one teaspoonful of baking powder sifted in the flour, three eggs, one tablespoonful of sweet milk, one teaspoonful of lemon essence, bake in a small dripping pan, spread the jell on while warm and roll up immediately.

Chicken Soup.—Wash two good, fat fowls and put on to boil according to the age and size of the fowls and the time you are to dine; if at twelve, put some nicely-washed rice, about a tablespoonful, into the pot at ten, make some drawn butter, take out the chickens, put them whole on a dish, pour the drawn butter, well seasoned, over them, and four hard-boiled eggs cut crosswise and laid over them; send to the table piping hot. Season the soup with pepper and salt only. Veal or mutton makes an excellent soup in this way.

Raisin Cake.—A delicious and inexpensive raisin cake is made of two eggs, one cup and a half of sugar, two-thirds of a cup of butter one cup of sweet milk, two cups and a half of flour, three teaspoonfuls of baking powder or two teaspoonfuls of cream of tartar and one of soda, one cup of raisins, cloves and cinnamon to suit your taste, one cup of stoned and chopped raisins. It is the experience of most cooks that cake made with cream of tartar and soda will keep moist longer than that made with baking powder, but the powder is so convenient to use that it has almost superseded the other. Do not frost this cake but until the top is a dark brown.

To make an appetizing beef stew take out the bone and bind the pieces of beef tightly, putting a lemon, pared and cut into, and some herbs in before binding. Place it in a small stewpan or kettle as will allow of its being covered with water. Let it cook slowly and gently; do not add any water unless absolutely necessary. Slice a large onion and fry it brown, and add to the water also any sliced vegetables you choose, or cook the vegetables in a kettle by themselves and on the platter with the beef. If you do not add any water you will have a very rich gravy, and a portion of it may be reserved for soup stock.

A transparent mucilage of great tenacity may be made by mixing rice flour with cold water and let it gently simmer over the fire.