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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.

THE apple crop of Europe is short. The supply of fine apples must be shipped from America.

THE English farmers claim to have raised 30 bushels of wheat to the acre this year, which is better than they have done before for many years.

TEN pound washed fleeces and one hundred and twenty-five-pound mutton carcasses should be the average for Merino flocks at no distant date, says the *American Sheep Breeder*, and the value of such sheep should be from $4 to $5 per head.

PROF. BUDD, of the Iowa Agricultural College, says that the stories here told, as to the value of the timber of the Russian mulberry were laughed at by Russian foresters. It is used in Russia, as it will be here, merely as a small-sized, ornamental tree, of some value as a fruit producer.

A FRENCH authority of note states the average price per bushel for wheat for thirteen years in France to be $1.45 per bushel; the lowest price during that period $1.05, in 1884, and the highest $2.10, in 1876. The same authority gives the cost of raising wheat in France at $1.53 per bushel.

A FEW years ago a crop of Chinese hulless oats was grown in Deer Lodge county. The grain was plump and heavy and the yield per acre was very good. We expected from the favorable impression that prevailed among farmers who had seen it growing that it would soon become a favorite crop; but recently we have heard nothing of it. If any one of our readers have grown this variety of grain this year we would be glad to have them furnish us a sample.

GARDEN: Onion sets may be planted in the fall, with a favorable prospect of obtaining large onions earlier in spring than would be in any other way; and considering the risk in wintering sets, fall planting is the safest plan. In this case it is absolutely necessay that the ground should be in the best condition and perfectly drained. Onion sets have a poor chance to survive in stagnant water and ice. After the ground becomes frozen hard, the beds should be covered lightly to prevent frequent thawing.

WE notice that one of our neighbors is experimenting with some cottonwood and aspen trees that were set out last spring. He has mulched them by piling half rotted manure a foot in heighth around the bodys of the trees. This treatment has been pretty generally adopted with those growing orchards in this country, but this is the first time we have seen it applied to native trees. We doubt its value to the trees, but glad to see the trial made. The experience of a number of Montanians who have put out native trees was: they grew better when set the same depth that they originally stood. Many of those that were set deep or hilled up died, while others did not thrive well.

A HEAVY wheat train pulled into Fargo by one engine, a few days ago, on the Northern Pacific railroad, consisting of one hundred and ten cars, loaded with wheat. This would make, allowing 500 bushels to the car, a weight of 3,630,000 pounds, while the cars weigh 2,729,000 pounds, making 6,380,000 pounds pulled by one locomotive, or over 3,190 tons. The train was over three-quarters of a mile in length.

THE pumpkin contains six or seven times as much water as either corn or oats; in a word, it is a food in a state of much greater dilution. Analysis proves that even if the pumpkin should be freed from its large percentage of water, corn and oats remain much more valuable as feeding stuffs. While pumpkins cannot be recommended as fat-producing material, they possess excellent milk-producing qualities, and being cheaply raised, may be counted as valuable food for milk cows.

It is a mistaken supposition that intelligence is not necessary for a farmer. The different occupations on the farm require close watching, much forethought and practical information, to be carried on successfully. The breeding, buying and selling of stock require more than ordinary business acuteness and tact, or money will be sunk in each operation. There is no other business in which there are so many things on hand at once, and all of which require prompt attention. Almost any man can learn to do one thing well, but few can, at the same time, do as many things as the farmer often has to do, and do them well. It is in this respect that most failures on the farm are made, in the lack of management, which so many different things necessitate in order that each may have its proper share of attention. Looking at this in its proper light, farmers must be, and as a general rule are, highly intelligent, and should be well educated.—*National Farmer.*

ALFALFA.

How to Plant and to Cultivate.

Many Montana farmers and feeders desire all the information on this excellent forage plant they can get; and whilst we advise them to try it in small patches, we, at the same time, would have them do so in keeping those who cultivate it on its native heath. The following from the New Mexico *Stock Grower*, is too good to pass by:

This valuable forage plant is particularly adapted to the Southern and Southwestern States. It lasts from ten to twelve years, as the roots penetrate from six to ten feet in the ground, far below the average of other plants, except the Johnson grass; but it requires a deep, rich soil, well cultivated. For any crop the richer the soil the better the crop. This applies to grasses as well as any other, and it is folly to expect any other than poor results from poor soil. The sun must have free access to alfalfa, and the ground must be rolling to enable the water to pass of readily, for wet underground is fatal to the plant.

When it is sown with a combination of oats the latter should be sown first and well harrowed in; then sow broadcast at the rate of twenty pounds to the acre, and roll the ground well and pasture it in the fall or let it lay idle.

It is more difficult to establish the first year, requiring a fine, mellow soil, but will, when first started produce a profitable crop. The second year it may be cut two or three times, but the stand will not be very dense. In the third year this magnificent forage plant is developed in its full vigor, and gives the earliest as well as the largest quantity for cattle, and should be cut when first coming into bloom. It is no sooner cut than it pushes out fresh shoots, and the aftergrowth is something wondertul. With favorable weather every six weeks will furnish a cutting. In the dryest and most sultry weather, when every blade of grass withers, alfalfa is as fresh and green as in spring, as the roots go down to the moisture in the ground like the Johnson grass. Although a prodigious yielder it does not exhaust the soil, but rather improves the ground by the decay of its roots and converts it to rich ground full of vegetable matter.

To promote its growth the ground should be plastered each spring and every second year manure or ashes should be scattered over it in november; the winter rains will dissolve the manure, but to effect a complete mixture the ground should be harrowed the succeeding spring as soon as it is dry enough to crumble.

A ranchman of Utah writes us as follows: "I have had years of experience here and in California. We always sow broadcast twenty to twenty-five pounds to the acre: the thicker it is sown the finer your hay will be. It it is planted thin it stools out and the stocks are thick and coarse and not relished by stock.

It requires no hoeing whatever, when sown as above. We cut four crops a year and its yield is enormous. The fall is the best time for sowing the seed, say from September 1st to October 1st. This gives it a good start, and it will stand the winter and do much better the following season than when sown in the spring. Sowing in the fall gives an opportunity to reseed in the spring on any spots that may not have received the seed; also to gain one season if a failure should occur. The above is my experience for fifteen years." When it begins dying out in spots it is time to break it up and the ground will then be found in excellent condition for wheat, corn, etc. Alfalfa claims to bear the palm as a forage plant, coming earliest in the spring and remaining latest in the fall.

It is worthy of a trial in any locality where it has not been tested already. We cannot recommend this grass too highly.

Alfalfa is a sure crop in the mountain valleys of Utah and Nevada at altitudes several times as high as that of Yakima, and as far as experimented with here, it bids fair to prove a perfect success.

POTATO TEST.

Prof. J. W. Sanborn, of the Columbia, Missouri, Agricultural college farm, has made a report to the president of the University, from which we extract the following: Among the multitude of unsettled problems of agriculture seemingly easy of solution, yet over which the farmer is still perplexed by a multiplicity of views and reported experiences, is the simple yet important question of seed potatoes. Shall they be used whole or cut? If cut, how; or shall we use small or large seed? Many assert that inasmuch as the tuber is not the true seed, which seed is found on the tops in the potato ball, and, that inasmuch as the eye is but the bud, it matters not whether the plant is propagated from a large potato or a small one, from eye or from many. Between the extremes in the practice of the various methods of seeding there is involved, at least the use of ten bushels extra of seed per acre, and at this point, Columbia, of a money value ranging from $5 to $15 per acre, with the varying prices of the seasons.

It means for our State a difference of 75,000,000, or more, bushels of seed used annually. The method of seed used may modify the crop 25 per cent, yet rating the variation of yield by method of seeding at ten per cent our crop of the State is modified by more than one-half million of bushels. Agriculture is woefully prolific of such unsettled problems, seemingly of little moment, yet the aggregate of each and the sum of them all is of momentous importance to civilization, as the unit of labor essential to produce a given amount of food, or of the raw products for the arts, measures all progress. However ambitious to do profound work, colleges and experiment stations may be at present, in part, at least, they have to amass facts to guide even simple operations of the farm, without the feeling that they work beneath their dignity.

The tests of methods of seeding potatoes, I have now conducted for nine consecutive years, upon three farms of diverse characteristics, and with one result. Two of those tests I will not be able to relate, namely: the first one on a private farm, and not recorded; the seventh at a college farm from which I removed before harvesting, but not until I saw clearly that the result would surely be in agreement with the five preceding tests upon the same farm.

All the above tests were, for each farm, under similar conditions, each farm using the same variety of potato, usually the Early Rose, and on soil of similar condition.

TURN OF THE TIDE IN SUGAR SUPPLY.

The unprecedently low prices at which sugar has been lately sold in the English markets have arrested attention in more quarters than one, and if consumers choose to remain apathetic, that is no reason why producers should look on unconcerned. Accordingly, we see influences at work which, so far as they are under control, have for their object the shortening of supplies so as to bring them down to the same dead level as the demand, and in the course of time there is to be a material curtailment of the general production. The process, however, must necessarily be a slow one, as the world's supply cannot be expanded or contracted, the same as anything regulated by an automatic machine, at an instant's notice; so that the trade need not be alarmed lest they should wake up one fine morning and suddenly find that the constant stream of arrivals from one part and another had been stopped, and that there was in consequence a sugar famine staring them in the face. Such a day, if it does come, is far distant yet, and buyers may count on prices continuing extremely moderate for the next twelve months at least.

We have already seen the application of the principle of creating an artificial diminution in the supply of sugar by our refiners repeatedly retrenching their daily or weekly output, and both wholesale and retail grocers have only the refiners to thank for the tactics they have resorted to in order to force up prices of moist goods 1s to 3s above their recent lowest point. The refiners, no doubt, think they have done well in producing one-third less than their average capacity during the last few months, and derive additional satisfaction from the advance in quotations that has finally rewarded them for their determination not to manufactur sugar at a loss. With the dealers the case is different, as they have no option but to buy when they are obliged and sell when they can; so that, occupying the position of middle men, they can neither hinder the demand from the retailers nor resist the higher pretentions of holders when they are unexpectedly out of stock. All these circumstances have to be borne in mind when there is a rising market, such as we have witnessed within the last fortnight; but they are as mere feathers in the scale when the whole question of supplies is fairly weighed and considered, as they have no immediate effect upon the actual condition of the market, and as this is regarded by producers generally as very unfavorable to their interests, they are taking steps to retard or lessen the supply of sugar as much as possible, until it corresponds more nearly to the prevailing demand, when a leveling up of prices, so much desired, would probably ensue.

Besides the efforts of the refiners here to curtail their outturn to the dimensions of the existing wants of the trade, there are the sugar manufacturers of Germany establishing an association to look after their common interests, so as to restore the trade to a sound and healthy basis, and also to protect themselves against the serious evils with which they are now threatened. But the most astounding of all the measures they propose for their relief is that which refers to the sugar bounties, as these, they allege, are responsible for much of their misfortune and some of the advocates of reform even go as far as to assert that "the sugar bounties must be abolished." Strange confession this, to be extorted from the lips of those who have thriven so immensely from the payment by the State of these very bounties. And next to such a total reversal of the old order of things comes another arbitrary and sweeping proposal, to stop "the excessive cultivation of beet sugar." Not content with a mere expression of words the apostles of the new faith in remedial measures being at once applied to the unsound state of the beet sugar trade, have resolved to take speedy action in the matter; and at an assemblage of their fraternity in Germany recently the manufacturers there decided upon calling a general meeting of the trade for the 1st prox., to consider what ought to be done for their benefit in the present unparalleled crisis. We, in common with many others, await the issue of these interesting proceedings.—*London Grocer.*

The Poultry Yard.

TABLE POULTRY AND PRESERVED EGGS.

It is my custom to visit London yearly during the time of the dairy show, for at that show there is generally a good exhibition of poultry. During the last three or four years classes for table poultry have been given, in which have been centered for me the interest of the show. This year seven years of these classes were provided, three for pure-bred birds, and four for cross-breds. These fowls were exhibited in couples, first alive, and then such as the judge selected were killed and dressed, and the prizes awarded among the dead fowls. In this way they were seen under both conditions, and the opinions formed when the fowls were alive could be verified or corrected when they were dead. Unfortunately, the way in which the selected fowls were trussed was not at all satisfactory, and the value of the experiment in many cases was thus lost. But still there was something to be learned, and many ideas already held were confirmed. I was sorry to see so few of the birds properly fattened, as this would have added greatly to their appearance and size. Fattening whitens the skin and flesh, if proper food is used, and in nearly every case the fowls as exhibited at the dairy show would have been considerably improved by a fortnight or three weeks' fattening. Some of them also appeared to me to be too old, but the time of year would be the cause.

As already stated, there were classes for pure bred fowls. The first of these was for Dorkings, and there could be no doubt whatever as to the merit of this variety as table fowls. For size, quantity and position of meat, length of breast and depth of keel, this is the best of our English pure-bred fowls. I do not know how much it is kept in America, but on dry soils, either chalk, sand or gravel, and where table poultry is the first consideration, no better breed can be obtained, and it would pay to give it encouragement. The next class was for Game fowls, but there was only a small entry. This I was sorry to see, but not surprised at, for Games are valuable, and breeders do not care to have them sacrificed. The two pens killed were of the henny feathered sort, and were very plump, good in color of skin, and of course the flesh was well placed. This also confirms past experience, showing that apart from the question of size, Game is one of, if not the best of, English breeds for the table. Some there are who think the flesh of the Game fowl dry, but I do not think so. Well fed young Game are fine in quality and flavor of flesh, only they should be kept three or four days after killing before being cooked. I was somewhat disappointed with any other variety of pure bred fowls, as there are many breeds which I should much have liked to see entered. The winners were some fairly good Creves, but not fattened at all, and, in consequence, not made the most of. With a month's fattening these would have weighed much heavier, and presented a different appearance. A pair of Malays, I thought to be about the nicest in the class. They were very meaty and plump, and though the flesh was somewhat yellow, yet the skin was clean and white. The meat was in the right place, and I was agreeably surprised at their appearance, so different from what it was when alive. I should have much liked to try their edible qualities. A pair of Houdans were shown, but they were not at all good, and the pair of Langshans killed were far behind what they ought to have been. Many well-known breeds were unrepresented.

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I was very greatly disappointed with the Preserved Egg Class, at least with the result as publicly exhibited. In this section there were thirty-one lots exhibited, in all kinds of ways. The eggs had been sent in on July 8th last, and as they were judged October 8th, the period in which they had been kept, was three months. The eggs were judged, and prizes awarded, but upon what grounds the award had been made, no outsider could tell, or in what condition they were preserved. The winning lots were (1) a lot preserved with beef and mutton dripping, melted together; a little painted over each egg, and then wiped with a cloth; (2) a lot rubbed with fresh butter and packed in salt; and (3)a lot preserved in common salt and kept dry. But I am unable to say anything more than that the prizes were awarded to these.—*English Cor. Country Gentleman.*

The Household.

Potato Balls.—Prepare and nicely season the same as you would for mashed potatoes While hot, form into balls about the size of an egg. Butter a flat pan, and place the balls on it. Brush over with beaten egg, and brown in the oven. To remove from the tin slip a knife under and slide on to a hot platter. Hard-boiled eggs cut in slices, and parsley, are a pretty garnish. A breakfast or lunch dish.

Warmed up Potatoes–Cut into little squares about a quart of cold boiled potatoes. Fry a tablespoonful of minced onions in three spoonfuls of butter; when the onions turns yellow, add the potatoes and season with pepper and salt. Stir, and be careful not to break the pieces. When well heated through, serve on a hot dish.