FOR FARMERS AND GARDENERS.

Cultivation of Wheat.

The article on this subject, by Mr. E. Sayers, printed in another column, is worthy the earnest perusal of all classes—more especially the farmer. It contains some facts which, though not generally known, are not less practical and important to be understood by the farmer.

It may possibly be asked, What has horticulture to do with farming; or, What can a a professional horticulturist understand relative to the most approved modes of carrying on farming operations?

These questions may be asked with about as much propriety and semblance of good sense as was evidenced when this gentleman, because he had not a vineyard himself, presumed to write upon the cultivation of the vine, and it was asked, "What does Mr. Sayers know about the grape vine?"—or more recently, by an individual who inquired, "what book do you get all your information from?" We thought that this question might have been answered by asking that shrewd gentleman if he would like to purchase the book, if he could be informed what it was; or, would he rather solicit the loan of it?

Now, to gratify this commendable spirit of *ingenious* inquiry, and to allay all ill-grounded apprehensions relative to the source from whence we and some of our regular contributors and correspondents obtain our "inexhaustible fund" of information, we will disclose the unfathomable mystery which, with that individual and possibly one or two others, has enshrouded the remarkable and unprecedented development of truth through the various departments of the Deseret *News*, by stating that the "book" from whence we gather our information is the Book of Experience and Common Sense. Perhaps the person or persons referred to would rather borrow this book than purchase it, as it is somewhat high-priced. If this be indeed the case, we will further say that, unlike the *News*, it can only be loaned in part. This we offer you, free, gratis, for nothing, without price, in our weekly issues.

If, therefore, there be any (the number is is small, we are assured) who cannot afford to at once exert themselves to purchase this excellent work, we would say to all such, subscribe and pay for the *News* and, if you are in possession of any facts, in arts, science or philosophy, that might be of interest to community, or to even a portion of the community, advise us of the same and, by thus continuing in well-doing, you may, ere long, become a possessor of the work.

To attain this, will require close attention to your own affairs—to the scrutinizing observation of the matters and things with which you are intimately concerned, taking the liberty always of generously culling all the good you can from every source and discarding the wrong. A persistent though slight departure from this golden rule, "mind your own business," may forever deprive you of the possession which, on the above conditions, you may certainly secure.

Who, then, desirous of receiving and doing good, will assume to depreciate the labors of an honest, sincere co-worker for the common weal? Who will say the article alluded to, on the cultivation of wheat, because it emanates from a horticulturist, is unworthy of consideration? We say read the article and, if it contains any ideas or suggestions that are not strictly true and practical, do us the favor to expose and correct them. If it contains principles that are incontrovertible, easily demonstrated, and highly practical, please oblige and benefit yourselves by approving and practicing upon them.

Sorghum Molasses.—Experiments with the Sorghum cane at the east, thus far go to show that the juice is much better adapted for manufacturing into molasses than into sugar. While the syrup is excellent and easily made, the sugar is said to be of poor quality and made with much difficulty. The Sorghum syrup, when thoroughly clarified, has a pure, sweetening property that will answer almost all domestic purposes. At all events, with a *very little* of imported sugar, we can do with the home-made Sorghum molasses, until some means are devised for making sugar at home.

The Grub in the head of sheep may be prevented by setting a trough in some convenient place accessible to them, as soon as the fly begins to trouble them; put in about two inches of tar in the bottom and sprinkle salt over it.

Butter in Five Minutes without a Churn.

A correspondent of the Scientific *American* highly recommends the following method:

"After straining the milk, set away for about twelve hours, for the cream to rise. (Milk dishes ought to have strong handles to lift them by.) After standing as above, set the milk, without disturbing it, on the stove; let it stand there until you observe the coating of cream on the surface assume a wrinkled appearance, but be careful it does not boil, as, should this be the case, the cream will mix with the milk and cannot be again collected. Now set it away till quite cool, and then skim off the cream, mixed with as little milk as possible. When sufficient cream is collected, proceed to make it into butter as follows: Take a wooden bowl or any suitable vessel, and having first scalded and then rinsed it with cold water, place the cream in it. Now let the operator hold his hand in water as hot as it can be borne for a few seconds, then plunge it into cold water for about a minute, and at once commence to agitate the cream by a gentle circular motion. In five minutes or less the butter will have come, when, of course, it must be washed and salted according to taste, and our correspondent guarantees that no better butter can be made by the churn ever invented.

To those who keep only one cow, this method of making butter will be found really valuable; while quite as large a quantity of butter is obtained as by the common mode, the skim milk is much sweeter and palatable. In the summer season it will usually be found necessary to bring the cream out of the cellar (say a quarter of an hour before churning) to take the excessive chill off; in winter, place the vessel containing the cream over another containing water to warm it; then continue to agitate the cream until the chill has departed.

Before washing the butter, separate all the milk you possibly can, as the butter will be found excellent for tea cakes. Butter made in this manner will be much firmer and less oily in hot weather than when made in the ordinary way."

It is worth trying.

Tea-Seed Applications.—The Commissioner of Patents has issued a circular in reply to the numerous applcations for tea-seed which are pouring upon the office at the rate of about thirty per week. The circular says, "that owing to the delicate nature of the seed, after undergoing so long a voyage, it would not be advisable to place them for the present, for experiment, in the hands of those unacquainted with their culture. Besides, it has been proven that this product can be successfully cultivated in various parts of the South, so far as the soil and climate are concerned; but this has been done in so limited a scale that the profits could not be determined, nor the culture extended, from a difficulty of obtaining a larger supply of the plants. Hence it would seem to be advisable that the present importation should be grown in considerable quantities in those sections where it is known that it would mature, in order that more seeds can be procured, and the culture indefinitely increased. Still, it would be proper that experiments should be made on a limited scale in all parts of the Union where there would be a probability of success. No disposal will be made of the plants now growing at the propagating gardens before the convening of the next Congress, after which a feasible plan will be proposed for their distribution."

Cure for Hollow Horn.—A correspondent of the *Prairie Farmer* gives the following cure for this disease, which he says he never knew to fail:

"I take a common pint cup or basin, fill it half or two thirds full of warm water, put as much salt into it as will dissolve, cool it to about blood-warm, and pour this into the creature's nostrils; the head of the animal must be held with nose up, that the brine will be sure to go into the head; then give them two or three good slices of fat salt pork; cut or split the end of the tail; I then make more brine, have it as hot as I can bear my hand in, put in more salt than will dissolve; with this wash and rub the cords of the neck and roots of horns. I think brine put on in this way is better than spirits of turpentine as a preventive of hollow horn. In some very bad cases of this disease it may be necessary to repeat this dose two or three times, but not oftener than every other day."

Not many instances of this malady would occur, we imagine, if cows and other animals were properly fed and well sheltered in cold weather.

Cooking Feed for Hogs.—Late experiments of an extensive pork-grower in the east, in changing hogs' feed from raw to cooked and ground food, resulted as follows:

"One bushel of dry corn made five pounds and ten ounces of live pork; one bushel of boiled corn made fourteen pounds and seven ounces of pork; one bushel of ground corn, boiled, made in one instance sixteen pounds seven ounces, in another nearly eighteen pounds of pork."

A TREATISE ON HORTICULTURE.

BY E. SAYERS, HORTICULTURIST.

No. 14.

CULTIVATION OF WHEAT.

In writing on the culture of wheat it may be considered as uncalled for, under the head of an Horticultural treatise, but as it is my design to treat of everything that is connected with the culture of the vegetable kingdom, I may be excused for simply giving my views on that which seems to be practical in its bearing to those who have not been accustomed to the cultivation of wheat, leaving the practical farmer to judge how far I am right in what may be advanced on the subject.

I need not in this place pretend to give any dissertation on the usefulness, or the historical account of so useful a grain, nor treat on the numerous varieties, in the different parts where wheat is cultivated. Like every other family of vegetables, the varieties have been extended to a very great number, far too great for the profit of the cultivator, and I am of an opinion if they were reduced to one fourth of the number, that the most favorable results would arise from such a reduction.

WHEAT A BIENNIAL PLANT.

Triticum or wheat in its primitive or native state is a *biennial* plant; that is, it requires two seasons to bring it into a state of proper growth and maturity. When ripe in the fall the grain falls from its husk or covering on the ground and, so soon as rain or moisture is sufficient for its economy, it takes root, fastens itself to the earth, so as to remain during the winters. As the spring advances, the young plants make a second growth and continue to increase through their progressive stages of growth until they arrive at a state of maturity.

ITS ORIGIN.

By cultivation, wheat, like many other families of grain, has been improved from its wild, primitive state to serve the end of domestic economy, and, in this state, it is subject to various changes from a state of perfection, by disease, influence of insects, bad cultivation and more particularly an undue attention on the part of the cultivator in selecting good seed for planting.

DETERIORATION.

By many persons it is universally acknowledged that this grain is fast deteriorating into a weak, meagre state, and one of the great causes is in sowing poor seed, and not giving a due attention to preparing the grain before sowing.

INCONSISTENCY OF SOME FARMERS.

It is somewhat singular that every farmer makes it a universal custom to select out his best ears of corn annually for seed, but never thinks of adopting such a practice for wheat. Ask him what he selects the corn for, and the answer will be, it is his custom and it is right to do so to keep up his stock true to its kind and in a good, healthy condition. Ask him if he follows the same practice with wheat and his answer is in the negative—it is of "no use."

NECESSITY OF SELECTING GOOD SEED WHEAT.

Now, as the corn and wheat are alike annual grains, if it is necessary to select the seed of one, it is also equally necessary to select the seed of the other. If it is "no use" to the one it is of "no use" to the other.

MANNER OF SELECTING IT.

There is but one method that can be adopted to keep wheat true to its variety, and in a good healthy state, which is in selecting wheat in the ear, in the course of every two or three years, for seed.

Suppose for instance he collects in the fall from any given variety the best ears sufficient to make a peck of seed. Sow this on a good clean piece of ground for seed for the ensuing season and from this stock grow seed wheat for two or three years, and then again renew your practice. By adopting this method much benefit may be derived in keeping any variety true to its kind and in a good, healthy condition.

TO THE YOUNG CULTIVATOR,

Much good would also accrue from this practice, as he will naturally become familiar with the good and bad properties of his crops; and practice will, by this custom, learn him many useful lessons that would never have entered his mind had it not been for such observations.

THE EXCHANGE OF SEED WHEAT

Is also essential to keeping it in a healthy condition. This is a custom which has been successfully followed for a number of years by the English farmers. The practice is for farmers who cultivate wheat on a heavy clay or loam to exchange with those who cultivate a light, sandy or chalky soil; and it is understood by the parties that every attention is to be given to growing the seed in the very best manner.

PREPARING THE SEED BEFORE SOWING,

Is essential to preserving it from the attacks of insects, keeping down *smut* and other diseases incidental to it. There are several methods practiced for this purpose—the liming and brining wheat being the most universal and, I believe, the best. I will herewith append a method long adopted by the Kentish farmers, England:

BRINING SEED WHEAT.

For this purpose the farmer has a large tub, called "the brine tub." This holds about double the quantity of wheat he intends to sow each day in the season. He also has a strong basket made of willows, that fits inside of the tub, to hold the wheat. The basket has two strong handles; a stick is run through the handles, over the tub is fixed blocks and pullies for drawing up the basket from the tub. Strong brine is made, sufficient to float an egg; at the commencement, the basket is put into the tub and filled about half full of wheat. Sufficient brine is then poured in to rise nearly to the top of the tub.

When the wheat has been in the brine about an hour it is stirred well with a stick, and all the chaff, seeds of weeds, etc., float to the top of the brine, which is skimmed off with an old milk-skimmer.

After the wheat has been in the brine from four to eight hours to soak, the basket is then hauled up to the top of the tub and a piece of board is placed under it, so that the brine may run off into the tub. After draining a few minutes, the wheat is thrown out of the basket in a small heap; this done, some pulverized lime is sifted over the heap; the pile is then well mixed together; when the lime adheres to the wheat, it is then prepared for sowing.

ANOTHER METHOD

Is often practiced on a small scale by preparing a thin mortar of brine or chamber ley, well mixed. Form the wheat into a conical heap, make a small hole on the top and pour the mixture into the heap, so that it is well mixed together, then stir it together, put into a bag and sow it the next day.

The utility of thus preparing wheat before sowing requires but little comment; suffice it to say, that it is considered a preventive against the smut, by destroying the fungous substance that is about the grain; it also prevents insects from attacking it, besides, I believe it serves to preserve the grain from rotting when lying long in the ground before germinating.

TIME OF SOWING.

In regard to the time of sowing and general culture, the fall season is the only time to plant the seed, in order that it may have due time to grow and come into a state of perfection. As this, however, in many instances, cannot be done to advantage where wheat is likely to be winter-killed, spring sowing is often done with what is called winter wheat.

SPRING SOWING TO BE AVOIDED.

This spring sowing is however cutting

"The time of life too short."

Wheat, like many other vegetable productions that are *biennials*, requires *two* seasons to grow into a state of maturity. When forced to produce a crop in one season, it is made unnaturally an annual plant and, by so doing, the natural habit of the plant must be weakened by slow degrees and hence it will be seen that wheat, planted in the fall, has from nine to ten months to make root, grow and come into maturity.

When planted in the spring it has no more than four or five months to grow and come into maturity.

The above fact may account for the mummy wheat, so called, being so productive, for the very reason that, while the grain was preserved two thousand years in its primitive state, the same variety was undergoing certain changes by mingling many varieties, disease, and shortening the due time of its natural growth.

It may be a question for the agriculturist to study, if wheat, which has been often grown in the valley from very late sowing, is not by slow degrees assuming a weak, meagre state. If this is a fact, the wheat is more subject to disease, for I hold it as a rule that a weakly constitution in the vegetable is alike synonymous to the animal, more subject to disease than when in a healthy state.

WHEAT TO BE SOWN EARLY.

When wheat or any other biennial plant is made annual by growing it in *one* season instead of *two*, it should be the object of the cultivators to plant *early* and use every possible means in culture to prolong the time of growth as much as possible, in order to produce well matured for a future sowing.

QUESTION FOR SCIENTIFIC FARMERS.

Whilst on these subjects, I will throw out a few hints to the scientific leaders of Horticulture and Agriculture, of the present 'enlightened age.' We hear much said of mother earth's "being run out"—ceasing to give due support to the vegetable kingdom. The question might be asked if the *vital principle* or *natural stamina* of vegetable life has not in a measure been "run out" by undue management in cutting short the natural time of growth in grain, vegetables and fruit, and by too much mingling the true or pure varieties into an innumerable mass of heterogeneous varieties.

THE DETERIORATION OF WHEAT

And other varieties of grain and vegetables, so much written on, is, I believe, chiefly owing to the above facts. The truth is, that almost every specie of grain and vegetable has been so much grown into choice varieties, that the old, primitive, healthy quality is almost extinct; and, until it can be again reclaimed into a healthy, vigorous state, little good may be expected in the present state of agriculture.

ROTATION IN CROPPING.

Regarding the manner of cultivating wheat in the valley, it is not my province to dictate to the practical farmer, who, I think, will agree that, if the practice of routine cropping was more generally practised, much good would result therefrom.

The too general practice of continual sowing wheat on the same ground must naturally extract a great portion of nutriment adapted to its growth and requisite in producing good crops.

If continual cropping of wheat must be