

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL  
IN THE DOMINION.

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JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"  
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1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, and is handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
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albuminoids; these are changed to soluble forms by ferments in the seed. This concentrated food in a soluble form causes the seed to make rapid growth from the beginning under suitable conditions. The more of this food material contained, the quicker the start and the more rapid the growth of the embryo or young plant. The large, plump seed has, therefore, a great advantage over the small, shrunken seed. Every plant-grower knows the advantage of giving the seed a good start. Weak seeds mean weak germs and sickly, slow-growing, light-yielding plants.

If the seed is sown in soil too dry, the moisture and oxygen are not absorbed, and germination does not take place. On the other hand, soil flooded with water smothers the seed, and the germ succumbs. Sown too early, before the soil is warm, the seed absorbs the water, but sufficient heat is not forthcoming to make the change of the stored food material into a form easily assimilated by the plant, and the result is no growth takes place, and the seed decomposes. The fact that oxygen is necessary has an important bearing on the depth of seeding and the cultivation of the soil. If the seed is planted too deeply, oxygen may be excluded, or nearly so, and the seed, if it germinates at all, which is doubtful, may not contain enough food material to feed the young stem until it reaches the surface, hence no plant appears. The sower must be governed in this matter largely by the size of the seed. The smaller the seed, the shallower the sowing, because small seeds contain less food material, and are, on account of their diminutive size, more likely to be entirely smothered. This is the reason for the shallow sowing of such seeds as turnips or rape, as compared with corn or the cereal grains.

After germination, the plant strives, as best it can, to reproduce its kind. The roots have the power of taking soluble plant food from the soil,

and as the roots get started before the stem and leaves, the young growing plant contains a large proportion of nitrogenous and mineral or ash constituents. As the plant grows, a larger leaf surface, in proportion to the root system, is evolved, so that the maturing plant contains a larger percentage of the carbon compounds taken in by the leaves from the air. The formation of seed draws on and exhausts the other portions of the plant. It is nature's method of assuring reproduction.

The fact that the young roots get the start of the leaves and draw the food material for the young plant, shows clearly that the soil should be well worked, friable, and rich in soluble plant food, as well as being moist, warm, loose and mellow at the time the seed is consigned to it.

### Revise the Bank Act.

Editor "The Farmer's Advocate":

I have read with much interest the articles in "The Farmer's Advocate," by Peter McArthur, dealing with matters pertaining to Canadian banking. I am pleased to note that so able a writer as Mr. McArthur has taken the matter up, and more than pleased to find that he has succeeded in getting a paper with the standing of "The Farmer's Advocate" to place these articles before the people.

It is to be feared that many of our newspapers are so closely connected with the "Big Interests" that they would not take kindly to any criticism of their friends, however timely.

I hope that readers of "The Farmer's Advocate" will carefully ponder Mr. McArthur's articles, and join in the crusade for better things.

Banks are in this country to stay (some of them—we cannot tell which); in fact, it would seem almost impossible that the business of the country could now be conveniently carried on without them. That they are an institution highly privileged by Act of Parliament, goes without saying; so much so that the Bankers' Association and allied interests have power, largely, to make and unmake governments.

The Bank Act in this country is framed in their interest altogether; it affords no protection to the people as it is at present constituted. It is likely to be revised at the next session of the Dominion Parliament. When it comes up for revision, the people, through their representatives at Ottawa, should insist on changes that will afford some protection to depositors; provide outside inspection; from start to finish, make bank presidents and bank directors legally responsible; provide a real redemption fund for redeeming note circulation, without using depositors' money, as is done at present; make Government charter and license, and membership in Bankers' Association, a guarantee that depositors' interests are safeguarded; and other changes which will tend to prevent the disastrous bank failures which are becoming altogether too common.

Middlesex Co., Ont.

W. WADDELL.

### HORSES.

Overfat or "drugged" stallions are not likely to produce colts with great vim and vigor.

The draft colt is usually more easily raised than the lighter types, and is the natural type to be produced on the farm where heavy work is plentiful.

Do not pamper your young stallion with too much concentrated, unhealthful food, nor put him into too heavy service at too early an age. Many a good colt has been ruined by these practices.

Choose a sire that is as nearly perfect as possible, but be sure that he is strong where your mare is weak. Like imperfections in both parents can scarcely fail to be manifested in the offspring.

The horse with the short back, compact and closely-knit body is the horse that looks best on least feed and the horse whose period of usefulness lasts over the greatest number of years.

It is not the stallion with the cheapest service fees that is likely to be the greatest factor in improving the horses of his district. Owners of the best sires demand higher fees, and the progeny generally warrants the increased expense.

### Developing the Foal.

The development of the foal commences long before it is foaled. The care of the pregnant mare has a very marked influence upon the colt in foetal life, and the colt's embryonic existence must exert a certain amount of influence upon its development during the early stages of its actual life. It is generally conceded that greater success attends the raising of colts from mares which have not been pampered, but have been constantly exercised, preferably at light work. It is safe, under careful management, to work the average farm mare even up to the day of foaling. Mares must be liberally fed, but not overfed, especially on grain. There is, however, little danger of them becoming too fat if kept at work.

With the mare treated in this way, foaling time presents fewer troubles. Having been safely delivered of her foal, the mare should be given absolute rest for from ten days to two weeks, when she can be again gradually started at light work. When the mare is first put to work, the colt may be allowed to run with her, provided there is no crop in the way that may be injured, which is generally the case in early spring. If kept in the stable, and only allowed nourishment when the mare comes in at mid-day and again at night, the foals are very often of too long duration for the best interests of the colt's delicate digestive system, which, under natural conditions receives a fresh supply of the dam's milk in small quantities at very frequent intervals. Running with the dam is helpful, because it allows the colt to nurse frequently, which aids it in getting a good start, and keeps the mare's udder in better condition than it would otherwise be. As the colt gets older, it can be kept in the stall for gradually increasing lengths of time, until, in a short time, the mare can be worked a full half day without returning to the colt. Care must, however, be taken that the colt is not allowed to nurse while the mare is badly overheated.

When the foal is from four to five weeks of age a little feed (crushed oats and bran) can be placed in a manger to coax it to eat. Many advise moistening this feed with a little sweet milk, while sweetened water is used by others. When the colt gets started to eat, a good double handful of this feed, given three times daily, will be found to keep him doing well for a time, but as he grows older, the amount must, of course, be increased.

Colts must not be too closely confined. If there is more than one on the place, a good plan is to give them the run of a nice grass paddock, in place of keeping them in a closed stall, while the mares are working. In fact, if you have two or more colts, let them run together, whether in a loose box stall or in a paddock. Feeding and allowing on grass places the colt in the best condition at weaning time. He is not nearly so likely to receive a serious set-back as when unaccustomed to feeding, having been allowed to pick a portion of his nourishment.

The mare that is required to nurse a foal, and at the same time do a share of the farm work, must be well fed. Oats and bran seem to be the best milk-producing foods for her, and should be fed liberally. Clover hay should form a large portion of the roughage fed until good grass is plentiful, when this should be the major portion of the ration. There is nothing like grass for milk production. Of course, colts do better where the mare is not called upon to work after foaling, but most farm mares must earn their keep. It is important that the foal be kept growing continuously, and anything which tends towards this should be encouraged.

### Some Sensible Suggestions.

See that the harness fits the horse properly.

See that the mane is pulled out from under the collar, and fore-top from under brow-band.

See that the blinders are properly adjusted and do not rub the eyes (the use of blinders should be discouraged.)

Walk horses when leaving the stable for a few blocks, also after watering, and thus avoid serious illness.

Never drive with a slack line.

Never jerk your horse with lines.

Never strike your horse over the head.

When starting a load, always have a tight line on your horses.

When pulling a hill, zigzag from side to side, and give your horses breathing spell, if necessary.

Always show your horse such consideration as you would like to have shown yourself.

Always water horses before eating.

Do not water or feed when horse is too warm, or too overheated; use judgment in graining.

See that your horse is properly stabled and bedded for the night. He has earned this comfort as well as you.

Occasional other useful hints are published in the "Farmer's Advocate" by the New York Humane Education Society.