

fish which we find in our streams and lakes. The crayfishes are frequently termed "crabs," but we have no crabs in our fresh waters. The crabs are marine animals with oval bodies which move sideways in walking.

An attractive little plant flowering at this time of year is the dwarf cornel, or bunch-berry. It is about ten inches in height with a whorl of oval leaves towards the top of the stem, and at the apex of the stem is a head of very small flowers, surrounded by four white bracts, which look like petals.

Later in the season it bears a bunch of red fruits, which are edible. These are commonly termed "berries," but are really "drupes," that is, pulpy fruits with a stone in the middle. The term "berry" should really be applied only to pulpy fruits containing many seeds, such as currants, gooseberries, etc., and most of the so-called "berries" are, botanically, not berries at all.

A close relative of the little bunch-berry is the flowering dogwood, which is one of the most beautiful shrubs we have. It grows from six to twenty-five feet in height, and has ovate leaves. The flowers have showy white bracts, and are borne in clusters. It is, in my experience, a rather rare species.

A commoner and very showy shrub is the moose-wood or hobble-bush, one of the viburnums. It has heart-shaped leaves which are heavily veined beneath, and are clothed with a rusty down on the veins. The flowers are borne in compact bunches and are of two kinds, the marginal ones being sterile with large white petals, the central ones being perfect (that is bearing stamens and pistils) and with very small petals.

We have three large groups of plants which are "grass-like" in appearance, the true grasses, the sedges and the rushes. These groups may be told apart by an examination of the stem and leaves. In the grasses the leaf-sheath is split and the stem, (in these groups termed the culm) in cylindrical; in the sedges the sheath is not split and the culm is as a rule triangular; while in the rushes the leaves are not flat but are cylindrical and hollow.

The fruits of some of the sedges are peculiar-looking objects, being something like a large, green prickly caterpillar. The sedges are very common in damp places, and make up a good deal of the marsh hay.

The rushes have little flowers with three sepals and three petals, both of which are usually brownish.

The nights of early summer have their quota of insect life, the big, blundering June beetle goes whirring about, and moths of many kinds are much in evidence. One of the most beautiful of these moths is the luna moth, a large species, pale-green in color with "swallow-tailed" wings.

The Exile's Song.

Now I tread the city's broadways, and my heart
is sore,
For the moor calls, and the wind calls, but I go
there no more.
And I'm fain for the lonely road, and a wild grey
sky,
And the screaming note in a curlew's throat as
the rain comes rushing by.

Out beyond the stream of traffic is a stream I
love,
And the old hills, the dear hills, and the stars
that climb above;
And it's there my heart is roaming while I stand
in the street,
And I hear the sigh of a dream gone by when the
world was sweet.

My soul is sick of cities, and the crafty strife;
And if gold were all, and greed were all, I have
had enough of life.
But always night and day I hear the moorland
music creep
To the heart that shall be aching till I sleep.
—Thomas Moulton, in London Academy.

General crop conditions on June 1st averaged for the United States slightly lower (0.5 per cent. lower) than on same date last year, and also lower (1.1 per cent.) than the average condition on June 1st of recent years. Conditions are generally somewhat below average in States east of the Mississippi river, except Pennsylvania, Ohio, Wisconsin, Tennessee, and Mississippi, and above average conditions west of the Mississippi river, except in North Dakota, Kansas, Oklahoma, Montana, New Mexico, Arizona, Utah, Idaho, and California. Few States show any decided deviation from average conditions; best conditions are in Nebraska, with 12.7 per cent. above average, and Iowa with 7.6 per cent. above average. Lowest conditions are in California with 20.9 per cent. below, Georgia with 14.3, South Carolina with 12.9 per cent. below average conditions.

HORSES.

The scrub sire still gets mares, and still is a detriment to progress in horse breeding.

Train the colt for the fall fair. It increases his chance of winning.

Thoroughbred mares are said to be in great demand in England and Ireland, foreign buyers keeping up prices.

Most of the work horses would be better out to grass these warm nights. Keep up the grain feed, however, if they are working hard.

It is said that Canadian buyers are making extensive purchases of horses in Great Britain and France. This should mean, with a strong lot of home-bred stock coming on, well-filled classes, and keen competition at the coming fall exhibitions. Canada still has a place for many of the best sires of the various breeds, and the best type of fillies for breeding purposes can be used to advantage.

The two-months breeding season ends shortly. Are your mares with foal? Some mares are non-breeders and some stallions leave few foals, but a large number of the mares are "missed" each season through carelessness or mismanagement, a great deal of which the mare owners are responsible for. If the mare does not get in foal early in the season she is often let miss a year, when, if she were returned after the season and when the horse was not so rushed, it is more than likely that she would produce a foal.



On Good Terms.

The colt, Bonnie Dell, is a Clydesdale, owned by Mrs. A. H. Bardwell and Annie R. Eadie, Middlesex Co., Ont.

"Whoa" means, when rightly used, that the horse is to come to a halt, but so many drivers, and very good horsemen too, use the word when they mean "steady" or when they wish to reassure a nervous animal. How is the horse to know the difference between "whoa" used to stop steady, and "whoa" used when a complete stop is desired? The only right method is to use each expression in the right place, "whoa" for a dead stop and "steady" for a slower gait. It is a good plan to talk to the horses in a quiet way, but never confuse them by using commands wrongly.

People admire a good horse. Let a big circus put on a parade in a town and thousands upon thousands throng the streets to witness it. True, it has its novel features and its menagerie, but listen to the conversation of the people after it has passed, and you will hear something like this "I wouldn't have come out to see it only I enjoy looking at the wonderful horses," or "The horses were simply grand." Few people talk of the gaudily dressed acrobats and clowns after the circus has passed; some speak occasionally about the ponderous elephant or the awkward camel, but all remember the horses. A good circus always has a large number of excellent horses, and they use them in the street parade as a drawing card. People estimate the show before they have seen it upon the appearance and number of horses in the parade. It will be a long day before circus processions are horseless.

When the Mare Fails to Breed.

All mares do not breed. If the horse is proving sure on other mares and a mare is returning throughout the season one must conclude that she is responsible for the failure. In an article on sterility in mares the Farmer's Gazette takes up the subject as follows:

When an animal fails repeatedly to become pregnant, and the circumstances of the case make it improbable that the mare is at fault, an endeavor must be made by careful examination and observation to ascertain the exact cause of the failure. Ascertain if the animal is in good health, with normal temperature, and appetite; note if oestrus appears at the proper interval, and is of the correct duration. A veterinary surgeon can examine the ovaries by manipulation through the rectum, but it is not advisable for the average owner to attempt this; in all probability they would not be recognized if located.

Examine with proper care the genital organs by introducing the hand, which must be smeared with a lubricant. Feel carefully for any injury, growth, or abnormality in the vulva or vagina. These organs are symmetrical, and any difference in the two halves calls for notice. If the mare is in oestrus, note if the os uteri is dilatable. Test the secretions of the vagina and uterus for acidity; this can be done by the insertion of litmus paper—the blue paper turns red on acid contact. Should these investigations lead to no satisfactory conclusion—and very probably they will not—an attempt must be made to rectify matters on general lines. If the secretions, periods, and general health are normal, act against the commonest and easiest treated causes of failure.

Wait until the mare is in oestrus and douche the genital passage thoroughly with bi-carbonate of soda and water (one ounce to the pint) several times. This is best done with the ordinary douche-can, with rubber pipe, sold by all chemists. The vagina should be thoroughly flushed out and the nozzle of the appliance gently inserted into the uterus. To do this, the os must be dilated if necessary, an operation which will be described presently. The liquid, which should be warmed to body heat, should be allowed to flow freely into the uterus, but it is not advisable to insert the hand.

On the following day, about an hour before you wish to have the mare served, flush the vagina again with the bi-carbonate solution, but do not pass any through the os uteri. Unless your previous examination has shown that the os opens freely, dilate it as follows:

Lubricate the hand with vaseline or a similar substance and gently pass one finger into the os, following it by more until all are inserted; then by separating them excite the organ to relax until the constriction gives way, which it usually does fairly easily. This must be done thoroughly, but without any violence, and is most important. Lead the mare quietly about for half an hour, allowing her to completely rid herself of any remains of the injection and bring the horse to her. Select a piece of ground so that she can stand with her head down a slope, and station an assistant with a bucket of water ready. Serve her with as little excitement as possible, and directly the horse dismounts, let the assistant dash the bucket of water under her tail, and trot her gently away, if possible down hill.

By this treatment you will, with luck, have overcome the commonest cause of failure, acidity and non-dilation of the os. The downward position of the mare, and the bucket of water—which will cause a spasmodic contraction of the uterus—aid the ingress and forward movement of the seminal fluid, and the subsequent trotting will prevent the mare from ejecting it should the trouble be undue relaxation of the os after copulation.

If these methods fail recourse must be had to artificial insemination. This operation is useful in many cases, but is credited with powers beyond reason. By it, the seminal fluid of the male is placed in the uterus of the female, and it is only successful when its non-entrance is the cause of failure. Artificial insemination is usually, and quite rightly, brought into play in conjunction with the treatment recommended just previously, and in many cases of success it received the credit which is justly due to the simpler methods. In many cases, however, especially where large males are used to cross with our smaller mares, the failure to "take" is due to a shrinking or withdrawal of the mare, probably at the instant of the enlargement of the glans; this, aided sometimes by the difference in size of the two animals prevents the entrance through the os of the seminal fluid, which falls into the vagina and is discharged by the subsequent straining of the mare. This state of affairs is common in mares which have been injured—perhaps unknown to the owners—during a previous serving or parturition. In such cases, and also in cases where a local injury of a temporary