

EFFICIENT FARMING

Castrate and Dock Your Lambs.

There is no truer indication of lack of proper shepherding than failure to dock and castrate lambs. No matter how good a feeder and caretaker otherwise a man may be, he is a failure as a shepherd if he neglects these important duties. It is a pitiful sight in the autumn to see ram lambs keeping the females continually on the move, not only losing flesh themselves, but hindering the entire flock from making satisfactory gains. Contentment and quietness are essential in a flock. The buyer goes to the neglected flock only when forced to because properly handled flocks are sold out.

Whether it is rush of work in the spring of year, fear of fatalities, lack of education or just carelessness on the part of the shepherd it is difficult to state, but the fact remains that in a great many flocks castrating and docking are left undone. These combined reasons do not justify neglecting these two important tasks. The sheepman will find very little employment that will compensate him better than docking and castrating. The operations are simple and easy to learn. Carelessness is no excuse and the owner, if pursuing haphazard methods, had better dispose of his flock as it is more than likely a balance will show on the wrong side of his ledger. Stockmen generally condemn those who fail to castrate horses, cattle or hogs and why should not the shepherd likewise be severely criticized? The lamb is the easiest to unsex of the common domestic animals.

The best age to castrate is about two weeks. A sharp knife should be used and with it the lower third of the scrotum cut off. Then sever the outer immediate coverings of each testicle and draw them out with attached cord, using the teeth or fingers. Wash the opening with a weak antiseptic solution. Some operators do not sever the bottom part of the scrotum but this is advisable and al-

lows good drainage. Other successful methods followed are to cut the scrotum and contents off close up to the body, or the emasculators may be used.

It pays the sheep owner to have his lambs castrated. Wether lambs sell at a premium above ram lambs. They make better gains as they are more restful. They do not annoy the ewes, are easier fenced and if there is no sale for them in the fall they may be kept over and sold as shearlings, whereas it is next to impossible to do this with any number of ram lambs. If the buck lambs are not castrated the danger exists of having the best ewes bred to poor ram lambs.

Docking lambs may be done with a sharp knife or chisel. A good plan is to use a long-handled, red-hot chisel and sear the tail at the same time as it is cut. This is a sanitary method and assists in controlling bleeding. The proper age for this operation is the same as that for castrating, and, while it may appear like severe treatment, both jobs may be done at once. An inch stub for males and two-inch for females looks well. Half-tailed lambs are almost as unsightly as undocked lambs.

Docking should not be neglected. The tail tends to collect manure and is frequently the cause of maggots locating on the hips and rumps of lambs. Occasionally the manure cakes and stops the action of the bowels. Docking improves the compact appearance of the lambs and is a sign of good management. Docking conserves the strength of the ram by facilitating the breeding of the ewes.

Potato Scab.

Common Scab.—This, as the name by which it is known implies, is one of the most common troubles affecting potatoes. Although the occurrence of scab does not, as a rule, affect the yield, it detracts considerably from the value of tubers for both seed and commercial purposes. The seed value is affected owing to the fact that the eyes of badly scabbed tubers are likely to be injured thereby, and the unsightliness of scabbed tubers combined with the considerable trouble and waste entailed in preparing them for the table, renders them undesirable for domestic use.

A discouraging experience frequently encountered by potato growers is that, notwithstanding the use of perfectly clean and sound tubers for seed, a considerable percentage of scabbed potatoes is in evidence at harvest time. This is due to the fact that the scab organism occurs naturally in the soil, particularly if alkalinity has been increased by the application of wood ashes, lime, fresh manure, or other substances of an alkaline nature. As an instance, it frequently occurs that where potatoes are planted on land which has recently been cleared and burnt over, or where they are planted immediately after an application to the land of fresh barnyard manure, the result is a scabbed crop. On the other hand, it has been found that the plowing under of green crops, such as clover, has a tendency to decrease the liability of injury from the disease.

The potato crops should be included in a rotation so planned as to allow for the plowing under of clover sod during the fall before planting potatoes. This practice, combined with that of seed disinfection by treatment with formaldehyde or corrosive sublimate, while not providing a guarantee that a crop of potatoes will be free from scab, constitutes a reasonable safeguard against its occurrence.

The following points should be particularly borne in mind at planting time:

- (1) Plant only clean tubers.
- (2) Disinfect seed by immersing it for two hours in a solution of commercial formalin—1 pound to 40 gallons of water, or
- (3) For 3 hours in a solution of corrosive sublimate (bichloride of mercury)—2 ounces to 25 gallons of water.
- (4) Use only wooden or earthenware vessels for corrosive sublimate.
- (5) Corrosive sublimate is intensely poisonous. All tubers treated with this, and left over after planting is completed, should be immediately destroyed.

Powdery Scab.—This disease differs considerably in appearance from Common Scab. The scab spots are darker in color and usually more uniform in size and shape. It is not so common or widespread as Common Scab, and usually occurs only in damp, cool seasons.

Potatoes affected with Powdery Scab should not be planted, and in every case all seed which has come in contact with any tubers showing the disease, should be treated with corrosive sublimate. As the organism is known to live for several years in the soil, potatoes should not be planted on the land where it has occurred for at least four years.

Child welfare work is conceded to be one of the biggest tasks before the women of the country to-day, and there is a crying need for this work in the country as well as in the city.

Experience Counts

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- (6) help banish weeds.
- (7) cut down labor costs.

Last summer \$1 invested in fertilizer for potatoes growing near London returned in one case \$2.94 and in another \$4.52.

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The Soil and Crop Improvement Bureau

of the Canadian Fertilizer Association

Henry G. Bell, B.S.A., Director, 14 Manning Arcade, Toronto, Ont.

Killing Quack-Grass

Quack-grass produces stems underground as well as above ground. These underground stems have joints in them, with a bud at each joint, just as do the stems above ground. And it is the underground stems that make quack-grass a bad weed. Every bud on such stems can throw up a new plant. Every time one of the underground stems is broken with a plow or cultivator, you have a new plant beginning from the part broken off.

The Time to Strike and the Reason. If you dig into a quack-grass sod in early spring, you will find great numbers of underground stems. At the approach of warm weather some of the buds on these stems begin to grow straight up to the surface. There they throw out a ring of real roots and form a crown from which a lot of leaves and stems grow. But at this time of the year all the stems that come out of a crown grow upward; and no new underground stems are formed until the plant begins to blossom.

Then while the plant is in bloom, a new crop of underground stems begins to grow. All these stems come out of the crown, just as the stems that grow upright, and never form any other part of the plant. If the grass is cut for hay at exactly this time, the growth of underground stems is completely stopped for a few weeks. The plant can not produce underground growth without a lot of leaves up in the sunlight; and if the plant has been cut while in bloom, it immediately begins to throw all its energy into the production of new leaves and stems above ground. This fact is very important, as we shall soon see.

It is also of very great importance that, by the time the plant blossoms, the old underground stems have done their life work, which was to throw up new growth to the surface of the soil. They are through; and will gradually die during the latter part of the summer. You do not need to pay any attention to them.

Some farmers make the mistake of trying to kill the underground stems early in the season. This is almost a useless task, for at that time of the year every joint of these underground stems can make a new plant. But after the plants have reached the blooming stage, the old underground stems have finished their work. They do not need killing then, for they are already beginning to die. So don't try to kill the old underground stems of quack-grass. They can't be killed before midsummer, and after that they die anyhow.

In order to tell when quack is in bloom, watch it carefully till you see the blossoms open, and the anthers hanging out of the flowers on slender threads. This will be about two or three weeks after the grass heads out. When the earliest plants begin to bloom, get out the mower and go to work.

Suppose now we let the grass grow undisturbed until it begins to bloom. At that time the old underground stems are done, and need no further attention; and there is no seed on the growing plants. If we cut the grass for hay just at blooming time, we can feed the hay with safety, for it will scatter no seed over the farm. The cutting also stops the formation of new underground stems for two or three weeks. There is thus a period of nearly a month, just after haying time, when quack-grass is not a weed at all. By that I mean that it has no means of reproducing itself except by growth from the crown. It is as helpless as a field of young oats, and can be killed just as easily.

How to Strike.

To eradicate the pest completely, at this time, all we have to do is to kill the growing crowns of the plants. The best way to do this is to skin the sod loose from the underlying soil in as thin a layer as possible—say not over three or three and one-half inches thick. This can be done by plowing with a broad, sharp share that will cut the sod entirely loose from the soil beneath. Deeper plowing will leave too much dirt attached to the roots, and the plants will go right on growing. The idea is to have as little dirt in the turned sod as possible—hence the shallow plowing.

If the weather is dry, the overturned sod will die promptly, and the work of eradicating the quack is finished. But if the season is wet, you will need to run a disk-harrow, with the disks set straight, across the strips of overturned sod. The harrow will cut the sod into small squares. After this, go once over the field about every ten days, using some implement that will move every piece of sod just enough to keep it from getting its roots into the underlying soil again before cold weather. A spring-tooth harrow is excellent for such stirring of the sod; but any tool that will move the sods about will do. If growth is prevented until the end of summer, there will be no quack on the field the next spring.

To Sum Up.

Cut the quack for hay while it is in bloom. Get the hay off as soon as it is possible. Then skin the sod loose from the underlying soil in as thin a layer as possible. If the season is dry, this will kill the grass completely. If the ground is moist, run a disk-harrow, with disks set straight, crosswise of the strips of overturned sod, to cut it into squares. Then to prevent the sod from getting its roots into the underlying soil again, stir the pieces of sod every ten days till frost. A spring-tooth harrow, or any cultivator will do for this. The field will be clean of quack-grass the next spring. Many fields have been cleaned this way.

Horse Sense

When a hard-worked horse stands idle for a day or two, and during that time is well fed on grain rich in protein, or on corn rich in carbohydrates, he is liable to contract what is termed "Monday morning disease." It has earned that name because it often attacks a horse that has been idle on Sunday and is found anchored in his stall when the driver enters the stable on Monday morning. The condition is due to gorging of the lymphatic vessels with the products of nutrition which are not used for the repair of waste tissue, or in generating heat and energy. When the horse is at work these matters are used up, in combustion, and waste or effete matters are got rid of by sweating and normal action of the kidneys and bowels.

The affected horse has high fever, blows hard, has fast, full bounding pulse and sweats with pain. Appetite ceases. One hind leg, usually the left one, is swollen high up in the region of the groin, and when that part is handled, on the inner side of the leg, the horse evinces intense pain, lifts the leg and tries to hop to the side, on the sound leg. The pain is in the lymphatic vessel which is clogged and may have germs caught in the nodes

along its course; for one function of the lymphatic vessels is to catch, at these places, germs or foreign bodies which enter the lymph they carry. Gradually the swelling descends until the entire leg is "as big as a post" and the swelling pits under pressure, like putty or clay. When the entire leg has become swollen, acute pain and fever usually subside and gradually the swelling disappears when the horse is worked or exercised.

The important consideration is not to have such cases. They may readily be avoided by never allowing any horse to stand for a single day without work or outdoor exercise, and during idle times cutting down the grain feed materially.

Treatment consists of bandaging the leg from foot to body with a soft straw or hay rope to be kept constantly wet with cold or hot water, according to the season of the year. Sloppy bran mash may be allowed, along with a little grass or hay, but grain should be withheld until the animal has recovered. Medicinal treatment consists in dissolving in the drinking water twice daily one tablespoonful of powdered saltpetre, and the veterinarian also gives a small dose of tincture of iodoform every three or four hours, until the fever abates. As soon as the swelling has involved all of the leg and intense pain subsides the

The Sunday School Lesson

APRIL 24.

Poverty and Wealth. Isaiah 5: 8-10; Amos 8: 4-7; St. Luke 16: 19-25. Golden Text—St. Luke 12: 34.

Connecting Links—Where social and economic conditions are such that men who work hard and long do not earn enough to keep themselves and their families in comfort, to feed and clothe and educate their children, there is evidently something wrong. This is especially true in a land like our own, a land of abundant resources. It is folly, in this country of free people and free democratic institutions, to blame the few who have gathered wealth or to talk revolution. The remedy lies with ourselves, in careful, patient effort to discover the causes of inequality and injustice and poverty, and when discovered to remove them. Is not one of the chief causes of poverty and unemployment the crowding of multitudes of people into the cities, when our fields, our forests, our fisheries, and our mines cannot find enough laborers? Does not the remedy for Canada, in very large part, lie in more and still more production, and, therefore, in the engaging of more and still more workmen in our great productive industries? And it will lie with our government to provide by law that there shall be a fair and an adequate recompense to every honest worker, and restraint or compulsion of some sort for both the idle loafer and the busybody.

Isa. 5: 8-10. Woe unto them. The prophet, living more than seven hundred years before the birth of Christ, sees the injustice of his time and is filled with a passion for reform. Especially is he disturbed by the fact that the land seems to be passing out of the hands of its original owners, the free men of Israel, into the possession of a few great nobles or rich men. Henceforth they who had been their own masters, owners and cultivators of the land, become practically slaves, or leave their poor homes to find a precarious living in the shops and markets of the city.

Isaiah foresees trouble coming upon the rich land-grabbers, whose insatiable lust for more would seem to indicate that they wished to dwell alone in the midst of the earth. A foreign enemy, the Assyrian, will soon invade the country, and their fine houses shall be left desolate, and their vineyards and corn fields waste and unproductive. Then ten acres of vineyard shall yield one bath, that is only eight or nine gallons, and the seed of an homer shall yield an ephah that is one-tenth only of what was sown. For an ephah contained about nine gallons by dry measure, and an homer was ten times as much.

Amos 8: 4-7. Hear this. Amos, like Isaiah, denounces the spirit of greed which was so prevalent in his time, the immoderate and unscrupulous seeking of gain, and the preying upon the poor. It seemed, indeed, as if they would destroy poor men out of the land, so greedy were the rich landlords and traders for more and more.

New Moon and Sabbath were holy days set apart for rest and worship. These traders are impatient of the

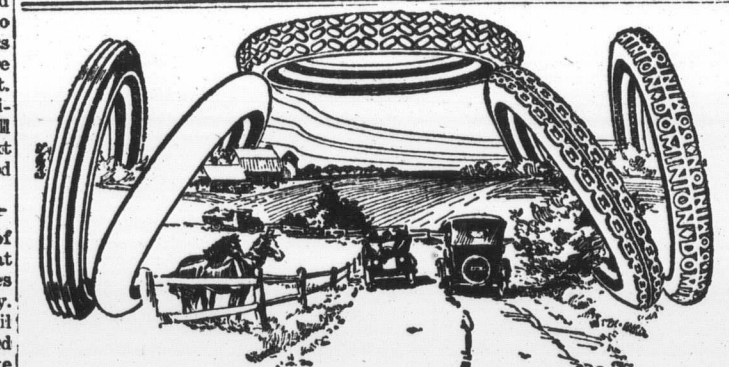
Planting Strawberries.

Plant strawberries in the spring as soon as the soil is in good condition to work. Procure plants from a reliable party, and if they are a little wilted when you get them, they should be heeled in very thin in the row and shaded from the sun until they freshen. Before heeling in cut off one-third of the roots evenly and leave three or four leaves. Cloudy weather is considered best for planting, although if your plants are in good condition, the forenoon and afternoon of clear weather is safe enough.

bandages may be removed, and the leg bathed three times a day with vinegar and cold water or with a mild astringent lotion prescribed by the veterinarian. One attack subjects the horse to another.

Now is the Time to

- Graft trees.
- Plant strawberries.
- Start an asparagus bed.
- Plant trees for a woodlot.
- Spray apple and other trees.
- Inoculate the soil for clover.
- Gather stones from the fields.
- Use self-feeders for fattening hogs on pasture.
- Screen your home. Start the campaign against flies at once.
- Change sheep very gradually from dry roughage to pasture.
- Get the oil stove in readiness, and buy or make a fireless cooker.



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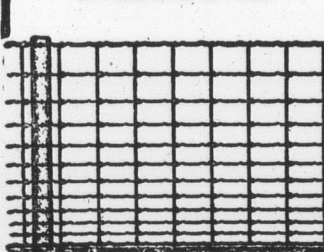
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