cramery.

—The dairy cow of to-day is what generations of milk-giving mothers have made her. As their surroundings and care have been in the direction of increasing the milk giving functions, every other function has yielded more or less to the one purpose. Shape, size and temperament have felt the dominating influence and have conformed to its demands. Thus it happens that the dairy type is not, as some suppose, cause, but effect. A cow is not a good milker because she has the dairy form, but she has that form because her ancestors have been bred and trained in the higher lines of dairy exercise.

Cost of Wintering Ewes.

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Cost of Wintering Ewes.

The Iowa Experiment Station has just reported the result of an extended experiment to determine the cost of wintering a flock of breeding ewes. Representatives of seven breeds were taken—Merinos, Shropshires, horned Dorsets, Southdowns, Cotswolds, Oxfords, and Hampshires. The ration was one-eighth oil meal, three-eights corn, and one-half oats, one-fourth corn, one-fifth bran, and one-twentieth oil meal. After Feb. I the corn was left out of the ration, the balance being the same. A pound each of sliced sugar beets twice a week was fed the last 60 days of the experiment, and increased to a pound a day after lambing. The hay was timothy and clover mixture. From the above experiment it was found that to maintain an average flock of mutton ewes in proper breeding condition there will be required one and one-third pounds of good mixed hay and three-fourths of a pound of grain equal in value to that given. These are good figures to remember by farmers who are thinking of going into the business of raising mutton sheep. Nothing is said of the care given. Good care is half the battle with mutton sheep, and no man should attempt to handle them who is not willing to give it.

Out Fodder.

—Few farmers appreciate the value of

Oat Fodder.

continued them who is not willing to give it.

Oat Fodder.

Few farmers appreciate the value of pats, if cut early, for hay. Wild cats of the Pacific Coast, which closely resemble cultivated oats, are a favorite hay food, and barley is extensively used throughout the far west for hay. These hays are so well liked by horsemen of the coast that in some distances when trotting and running horses have been brought east from California, hay has been shipped at the same time for their food. Of course oats must be cut early to make good hay, and will then yield about the same as our other hay plants. When the oats of a field have grown unusually tall and are falling down badly it is often better to cut the crop for hay than let it remain and get a small yield of light oats. Oat hay is bright, palatable, and free from dust—qualities of much importance, especially in horse feeding.

According to a statement of a French chemist oats contain twice as much mineral principles to form and grow bones of the animal as Indian corn. It is 12 to 14 per cent. richer in protein—that is to say, in matter that makes muscle and other tissues. Besides that, oats contain a principle that has been ignored for a long time—a stimulant simflar to that contained in tea and caffein contained in coffee. The German chemist who discovered this principle calls it avenin, from the Latin word avena—coats. Oats are almost indispensable for the horse, and with regard to all other animals one ought to feed them this grain in preference to all others.

Bees in Bee-Trees.

A subscriber asks: 1. If I buy a wood.

Cellar for Storing Roots.

—Fourteen hundred bushels of roots will require between 2, 150 and 2, 200 cubic feet of storage room. The main object in storing roots is to keep them at a uniform temperature as little above the freezing point as practicable. One of the best ways to do this is simply to plet them in long narrow piles on well-drained ground, convenient to the place where they are to be fed. An exavation about a foot deep should be made and a layer of clean straw placed be made and a layer of clean straw placed be made and is should be covered thickly with straw and then with a foot of earth. At distances of six or eight feet along the apex of the plle, a drain tile should be inserted to give ventilation. For a permanent cellar, in many cases, the most convenient arrangement is simply to partition of a corner of the barn basement of setting up ten or twelve inch studs, boarding on both sides and stuffing the barn evilar. This arrangement is especially convenient where the root cellar can be so built that it can be righted from the driveway in the second floor of the barn. Where a cellar is built in this way, grout walls, cemented on the inside, should be used, both as a protection from

cold and against rats. The relative advantages and cost of these various ways of storing roots will, of course depend entire-ly upon individual circumstances and surroundings.

Leafy Branches.

The Dairy.

The Dairy.

Many dairymen line butter pails and tubs with parchment paper before the butter is put in, which keeps the butter away from the wood, avoiding the chance of wood taint.

—Someidea of the cheese industry may be had when it is stated that the 1,400 factories in the Dominion last year produced 1,760, coxes, or 6,800 car loads, representing a total sum of \$10,000,000; while this year, powing to the excellent pasture, the outcome will be considerably in excess of 1891.

—It is the submitting the cream and butter to all temperatures, and churning in the summer eight degrees too high, and vream 50 degrees too sour, and being everlastingly churning and working over the butter, and not getting it into the package in any season, that makes the butter soft.

—Great improvement could yet be made by requiring greater cleanliness connected with the milking. So long as some Patrons sontinue the practice of rattling five or ten pounds of manure, which have been allowed to accumulate on the cow, over the milk pail twice a day, so long will the quality of the butter be below what it should be.

—The value of the skim milk and whey should always be considered when milk is supplied to the creamery. As the Patrons of the creamery can feed the skim milk and whey to pigs, it is plain that a portion of the profit derived from the whole milk must be taken from the pork, which is, to a certain extent, a by-product of the creamery.

—The dairy cow of to-day is what generations of milk giving mothers have made her. As their surroundings and care have been in the direction of increasing the milk giving functions, every other function has yielded more or less to the one purpose. Shape, size and temperament have felt the dominating influence and have conformed to its demands. Thus it happens that the dairy type is not, as some suppose, cause.

The Hardings.

Leafy Branches.

A European student of forcers, in londing the chosures, which has destroyed, which has destroyed, which has destroyed with the midstraying the di

Pruning Fruit Tree Roots.

THE HORSEMAN.

The breaking and early teaching of the youngster will have a very important bearing on the future usefulness as regards road driving. It does not require a trainer at \$5,000 a year to break and handle colts, but it does require some brains, considerable patience and a man of more than ordinary intelligence. One hasty blow may do more harm than weeks of rational treatment can restore.

There is no remedy for diseased teeth i There is no remedy for diseased teeth in horses save extraction, and this should be accomplished immediately by a thoroughly competent operator, as there is considerable danger in performing the operation both to patient and dentist. Fracture of the jaw, swallowing of the drawn tooth and quite a number of other accidents have happened to the animal during the operation, thereby showing the necessity for skill.

Horses differ in the amount of food they Horses differ in the amount of food they do best on, just as they differ in the amount of work they require. A limited proportion of cracked or ground food is beneficial in all cases, and essential in some. Horses who are inclined to bolttheir cats, in whose solid excrement are observed whole grains, will get more nourishment from broken than from whole grain. Good, clean bran, well scalded, may be used judiciously to good advantage when the horse's bowels need a little loosening.

Kentucky is the natural habitat of the horse—runner or trotter—but she always doffs her colors to the transcendent specimen of equine perfection, no matter where it halls from. When Cortez invaded Mexice, he brought with him a troop of cavalry mounted on Spanish horses. These were the first horses that ever set foot upon the soil of the new world. The terror these animals inspired had much to do with the overthrow of the brave defenders of Mexican nationality. The superstitious natives regarded the Spanish cavaliers and their horses as Centaurs, who were invincible. From this importation of horses by Cortex, some of the animals escaping, were descended the wild herds of the Western plains—now nearly extinct—and the Texas plains—now nearly extinct—and the Texas mustang and Indian pony of the present. The wild descendants of Cortez's importa-tion are about extinct, but the line still

the laws of nature have no force in America.

Pruning Fruit Tree Rocts.

—This is very little practiced by horticulturists in Ontario, and the operation is one that should be attempted with considerable caution. The danger lies in too much lessening the vigor of the trees by cutting off those roots by which supplies are taken in for its growth and development. If the roots are over-pruned, the life of the tree will be shortened. The life of the tree, way be diverted to the formation of fruit beds. The same end is accomplished by grafing the trees on dwarf stock, as when a pear tree is graited on the quince, or an apple tree on Paradiae atock, and by summer pruning of the tep. In England, where gractening is a higher art than is ere, root pruning has been much. Root pruning should be done in the autumn or early winter. A trench is dug around the tree, at a distance from the trunk proportioned to the size of the tree. If began when young, the tree may be so dwarfed that it will never become large; but, where the trees havegrown twenty yearsam must be very large, the trench should be a least en or fifteen feel frome will be shortened to be left to the judgment of the operator. The roots should be used to be left to the judgment of the operator. The roots should be used to the left to the judgment of the operator. The roots should be used to the left to the judgment of the operator. The roots should be used to the left to the judgment of the operator. The roots should be used to the left to the judgment of the operator. The roots should be used to the left to the judgment of the operator. The roots should be used to the pr

The sections must be scraped to remove the portance, specially in horse feeding:
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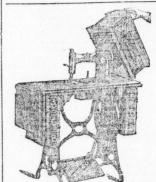
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