

COW POX.

H. MACLEAN, Salmon Arm, B. C.:—"I have a valuable cow with the cow pox for six weeks. Have used turpentine and oil. Is that the best treatment? Same cow had a swelling in udder, a hard lump with soft place in it; milk from teat nearest lump has been bloody for a week, but seems all right now. The cow has been failing in condition all the time. Has run out in bush on good pasture and plenty of fresh water."

[Bathe the udder morning and evening with tepid soft water, and after each bathing apply the following lotion: Sulphate of zinc and tincture of opium, of each one ounce; carbolic acid, half an ounce; water, one pint. Give morning and evening for a week, in sloppy, easily digested food: Hyposulphite of soda, one ounce. Keep the animal housed during the hot part of the day. Paint the lump with tincture of iodine three times a week.

W. A. DUNBAR, V. S.]

ERYTHEMA.

S. WHITTOCK, Glen Adelaide, Assa.:—"I have a cow whose nose has turned from white to black or dark brown, skin hard and dry; similar change came on her teats, and they are badly cracked and very painful. She gives about the same quantity of milk as before, and is well otherwise. 1st. Name the trouble? 2nd. What is the cause? 3rd. The cure? 4th. Is the milk fit food for man or beast? 5th. Is the trouble infectious?"

[1st. A superficial inflammation of the skin, technically called erythema. Some cows are very subject to this affection. 2nd. Sometimes obscure. Pasturing on low, wet land, where the grass is long and coarse, will often cause it; also irritation from flies, etc. 3rd. If the cause is known, remove it. Apply to the sore parts, morning and evening, a liniment composed of collodion and glycerine, equal parts. 4th. If the cow is healthy in other respects, the milk is fit food for either man or beast. 5th. No.

W. A. DUNBAR, V. S.]

G. P. LIDFORD, Man.:—"Cow, seven years old, got sick four days ago. Nose dried and cracked; teats began to crack. Wants to be in the stable all the time. There are a good many similar cases around here, one proving fatal. What is the cause, and cure?"

[See answer to S. Whittock.]

ACUTE INDIGESTION.

H. D., Lena, Man.:—"Can you explain the causes and remedies of the following illness of calves. Several calves were attacked, ages ranging from six weeks to two months. They were fed on skim milk, and were running in pasture apparently in a thriving condition. The first symptoms were foaming at the mouth, grinding of the teeth, hanging out of the tongue and violent twisting of the neck. They afterwards ran round in a circle as fast as possible, then bellowed and kicked and almost immediately died. Some lingered two days, but one died in one. The symptoms were very much like those of poisoning, but no poison has been used on the place for four years."

[The trouble with your calves was gastritis, or acute indigestion, probably caused by injudicious feeding. Too large rations of skimmed milk is especially difficult of digestion. The treatment consists in the administration of from four to eight ounces of castor oil, and from three to six ounces of lime water, according to the age of the calf. Injections of warm water and raw linseed oil may be given with advantage. Fomenting the abdomen with hot water for the space of two or three hours, or longer, is often of great benefit. Half the above quantity of the castor oil and lime water may, if necessary, be given every four hours until three or four doses have been administered.

W. A. DUNBAR, V. S.]

Miscellaneous.

ALFRED A. FRASER, Cross Point, Bonaventure P. Q.:—"In your next issue please mention the best pump for farm for watering about 50 head of stock; well about 15 feet deep; iron pump now in use, but it does not draw fast enough. Are not wooden ones better?"

[Most wooden pumps throw a larger stream than iron ones. A good serviceable pump can be secured from any reputable maker. For watering that number of stock there should be economy in having a small windmill erected to do the pumping.]

FAILURE OF STRAWBERRY CROP.

G. E. GIBBON, Parry Sound.:—"A year ago last spring I planted four rows of Wilson and Sharpless strawberries, mixed; rows 100 feet long and three feet apart, plants one foot apart in the rows. The ground was manured the previous fall with farm yard manure, and was in fine condition. The rows were kept clean and the plants made a splendid showing. This season the plants bloomed to such an extent as to give the rows an almost solid white appearance. The fruit appeared to set, but amounted to nothing. On the whole there was not more than four quarts of berries. Can you or some of your correspondents give the reason of failure?"

[The above case seems a remarkable one. Had the fruit not set we would attribute the failure to the plants being almost all pistillate, but the most probable cause seems to our minds to have been too low a temperature just at the critical time. No doubt Mr. Gibbon's good treatment has brought the plants along earlier than the climate in that section could protect. We are aware of several strawberry crop failures this season, occasioned, it is believed, by frost. We would like to receive the views of practical growers on the above case.]

THE FRENCH-CANADIAN COW.

DAIRYMAN:—"I would like to secure, through the FARMER'S ADVOCATE, some special information regarding what are known as 'Quebec Jersey' cattle. 1. What are their principal characteristics? 2. How long have they been bred pure? 3. To what extent have they been recorded in a herd book? 4. How have they succeeded at the Experimental Farm, Ottawa? 5. For what price do mature cows of the breed usually sell in Quebec? 6. What records have they made for butter production?"

[1. The principal characteristics or points of Quebec Jerseys may be described as follows:—Head short and broad, horns generally turned inward and slightly upward, with dark tips; muzzle surrounded by silver gray or yellowish circle; ears medium size and covered with short hairs, and inside orange colored; tongue black; neck thin; back straight to tail head; chest deep, forming an almost straight underline with the belly and thighs; loins broad and long; barrel well hooped and deep at the flanks; thighs long and wide apart; tail thin and reaching below the hocks; legs short and fine; skin thin, mellow and covered with an abundance of soft hair; color black, brindle, fawn or red dun; the dark colors often have a fawn stripe down the back, round the muzzle, inside of thighs and lining of ears; udder free from hair and fleshiness, running well up behind and extending well forward; teats long, well apart and squarely placed; milk veins large and tortuous, entering large aurifices; general appearance rather bony than fleshy; average weight, 700 pounds.

2. According to Professor Barnard, of the Agricultural Department, Quebec, the first of these cattle were brought from Brittany and Normandy in the 17th century, and have since then been bred pure.

3. In 1886 a French-Canadian herd book, "*Le Livre de Genealogie de la Race Bovine Canadienne*," was established. It was opened under the auspices of the local Government of Quebec Province, under a special commission, the secretary being J. A. Couture, V. S., 60 Des Jardins street, Quebec. Over 1,700 cows and 300 bulls have been recorded in that herd book.

4. French-Canadian cattle have been kept at the Central Experimental Farm, Ottawa, since 1890. Prof. J. W. Robertson said of them at a farmers' meeting that they were the sort of cattle which dairymen of Quebec, or any other country having a like climate, should keep for profit. The Professor also stated at another meeting that steers of this breed fatten readily. In actual comparative tests they did themselves great credit.

5. The present demand for Quebec Jerseys is very brisk. A good registered cow usually brings from \$35 to \$50, while common, unregistered stock usually bring about \$25 in the fall and a little more in the spring.

6. From a list of ten cows' official records, taken by the Quebec Dairy Association, we summarize as follows:—

Pounds of milk in 7 days, from 191 to 295 lbs.
Pounds of milk in 1 day, from 32 to 41 lbs.
Pounds of butter in 1 week, from 10.4 to 13.4 lbs.
Pounds of milk per lb. of butter, from 16 to 25 lbs.
Pounds of butter per 100 lbs. milk, from 3.36 to 6.25 lbs.

The following table gives the performance of a whole herd of 24 ordinary registered cows, owned by a farmer who does not give any extra care to his cows. Their feed consisted of dry hay, dry straw, and ordinary pasture and a little wheat bran:—

EXPENSES.	
Hay, at \$6 per ton.....	\$268 80
Straw, at \$3 per ton.....	67 20
Bran, at \$16 per ton.....	10 32
Pasture, at \$5 per head.....	120 00

Total expenses.....\$466 32

RECEIPTS.	
Cheese.....	\$531 19
Butter.....	323 20
Milk Sold.....	100 50
Three Fattened Calves Sold.....	12 00
Six Calves Raised.....	18 00

Total receipts.....\$985 89

Total expenses.....466 32

Net Profit.....\$497 57

The cost of winter feeding the cows was .074 cents per day for 210 days; that of summer rations was .033 cents per day for 155 days, giving a very low average cost for the year, while producing 112,718 lbs. of milk, at a cost of about .14 cents per 100 lbs. It is calculated that the manure pays for the labor.]

We are indebted to Mr. J. C. Chapais, St. Denis, Kamouraska Co., Que., Assistant Dairy Commissioner for the Dominion, for the above information.

Mr. W. S. Hawkshaw, of Glanworth, Ont., writes us as follows regarding two cows of this herd, which he brought from Quebec last year:—"I am well satisfied with them as buttermakers. One of them, a cow seven years old, calved April 1st, 1891. One week after, the milk tested 5 per cent. butterfat; one month later, 4½ per cent. They seem to sustain their milk flow better than the ordinary cow. In fact, they seem to me to be identical with the regular Jersey (barring color). The old cow is milking much better than she did last year. I have a young heifer coming in that I have great hopes of."

GARDEN AND ORCHARD.

Apple Growing in Ontario.

BY G. C. CASTON.

Now that it has been proved beyond a doubt that the Province of Ontario has the soil and climate adapted to the production of apples of the highest quality, the importance of this fact should stimulate the growers to make this branch of industry one of the most important in the country.

There is no doubt that the area over which the best quality of apples can be grown is very limited, on this continent at least. It may be roughly stated as lying between the 40th and 45th parallel of latitude, or, more strictly speaking, that part of Ontario between the 43rd and 45th, and not extending very far past the boundaries of this Province, with the exception of part of York State, and the Annapolis Valley in Nova Scotia in the East, and part of the Michigan Peninsula in the West, that part of Ontario and York State lying south of the 43rd parallel being better adapted to the growing of grapes, peaches, pears, and the more tender varieties of fruit; so that each locality will have its speciality in the future. And for the central belt of Ontario, that part already described as lying between the 43rd and 45th parallel, the speciality will be the growing of apples, for in this tract of country lies the best apple growing district in the world. It needed not the Chicago Fair to prove this. Look at the accounts of prices received by any dealer in the British market for apples, and compare the prices of American, Nova Scotian and Ontario apples, and the latter are always the highest, the difference being often several shillings a barrel. There is one apple, however, grown in New York State that is an exception, and that is the Newton Pippin, which sells for the highest price of any, but is grown successfully only to a very limited extent over a very small section. With this exception, our apples always range higher in price than any others, on account of the superior quality.

Now, if we are to make the most of our opportunities in this line, we must aim to maintain the excellence of our fruit, and produce only the best. The best in size, evenness, color, quality and packing, and the question of a future market need never trouble us, as that problem seems already solved. There are certain mistakes to be avoided, and attention must be paid to the details of the business, and skill and good judgment exercised in order to succeed well in this line, as well as any other branch of agriculture.

It is a mistake to plant an orchard on land that has been already exhausted by a long-continued system of grain growing, without first bringing the land to a proper state of fertility. This often accounts for the lack of thrifty growth, black-hearted, moss-covered trunks and early decay, of which we often hear complaints and the evidence of which we often see; for a young tree, like a young animal, when once stunted, is never worth much after. There are three elements principally required in the soil for the growth of the wood and perfection of the fruit, viz.: potash, nitrogen and phosphoric acid. Where barnyard manure cannot be got in sufficient quantities, the nitrogen may be easily supplied without it, by sowing thickly with clover, and when at its best, ploughing it under. It is quite possible and easy to supply sufficient nitrogen to the soil in this way. The other elements, potash especially, is absolutely necessary in the growth of healthy, hardy wood tissue, and the perfection of fruit of the best quality. These can be supplied most cheaply in the form of hardwood ashes, and where they cannot be got they can be purchased in some form of commercial fertilizer. But we cannot place too much emphasis on the value of ashes for the orchard.

It is a mistake to plant too many varieties, and a very foolish one indeed, yet one too often made, especially in planting too many early varieties, unless sure of having a market for them. They will no doubt pay well (for they, as a rule, bear earlier and more abundantly than the late varieties) where markets and shipping facilities are favorable. But where these are uncertain, it is best to rely chiefly upon the late-keeping winter sorts. It is a mistake to plant varieties not suited to the climatic conditions of the locality; it is time and money thrown away, even if those varieties are valuable market apples. Only the hardiest should be planted, and any desirable and valuable market varieties that are at all tender should be top-worked on hardy stock, and they will grow to great perfection and with more profit in this way than in any other.

It is a mistake to neglect a little annual pruning and to let the trees grow as they will for several years and then butcher them unmercifully in trying to repair the wrong.

It is a fatal mistake to grow grain of any kind in the orchard, or grass either, except it be a crop of clover for ploughing under for fertilizing purposes. It is a mistake not to have a shelter belt of trees of some kind (evergreen preferred) on the north and west sides of the orchard. The fruit trees should be