

Red Prince II., who thus had the signal distinction of siring a trio of champions. Among the other exhibitors who came into special prominence, the following may be named: Mr. T. J. Studdert, Athboy; Capt. A. Maude, Hillsboro; Mr. Wm. Gregg, Castlereagh; Mr. H. C. Walton, Crewe; Mr. Thos. Donovan, Cork; Mr. R. Laverly, Dungannon; Mr. J. Rohan, Middleton; Messrs. Slocock, Carlow; Mr. J. Milling, Comber; Mr. C. H. B. Caldwell, Navan; and Mr. E. Malone, Lucan.

The harness section at Ballsbridge has to take a subsidiary place, but still it never fails to attract some grand teams of stylish stoppers, several of them coming from across the channel. Some classes for cobs and ponies also succeed in bringing together interesting displays, and both these sections well maintained their reputations at the late show.

It was peculiarly unfortunate that the weather proved most inclement right through, and each day's proceedings were greatly marred by heavy rain; still, enthusiasm was as usual very buoyant, and the entire show was voted a distinct success, and a credit to the country.

EMERALD ISLE.

Cerebro-spinal meningitis is a formidable-looking word, but it has been decided that that is the real name of the disease commonly called staggers—blind staggers and sleepy staggers. The veterinary expert of the Louisiana State University has been investigating outbreaks of staggers, and while he was not able to discover a specific germ, he assures us in Bulletin 106 that staggers is more properly called Cerebro-spinal meningitis.

LIVE STOCK.

FEASIBILITY OF COMBINING MILK AND BEEF.

It is commonly urged against the dual-purpose standard that it can at best be only a compromise, a sort of half-way advance towards both beef and milk. Were this true it would effectually dispose of the combination as a profit-earning proposition, for the steers would make poor beef, while their dams would be unprofitable milkers, and the difference between a poor and a good milker may easily spell the difference between profit and loss. There is no money in dairying with low-yielding cows. If, therefore, the dual-purpose cow could be only half as good a milker and half as good a beefmaker as the special-purpose dairy and beef breeds, respectively, she would not be worthy of serious consideration.

But facts make out a better case in her favor, for while the dual-purpose cow may not be quite as good in both capacities as are her specially-bred competitors, each in its particular one, still it is practicable to secure the combination in very high degree. The dual-purpose ideal has the great advantage of not departing too far in either direction from nature's intention, and nature interposes fewer obstacles in the way of him who essays to develop two excellencies in fair degree than of him who seeks to push any one to its limit. It is vastly more difficult, for instance, for the dairy breeder to increase the average production of his herd from 300 to 400 than from 200 to 300 pounds of butter-fat a year; while, on the other hand, after a reasonable degree of conformation and fleshing has been attained by the beef breeder, he finds it increasingly difficult to make further advances in these respects. But if the beef-breeder undertakes to develop dairy quality in his beef-bred stock he can secure it in considerable degree without material sacrifice of beefing proclivities. Indeed, it would often be accompanied by a decided improvement in the breeding quality of his females. On the other hand, the dairyman could develop a much more substantial and easy-fleshing type without serious impairment of dairy quality, to the decided advantage of his breed in health, stamina, hardiness, and wearing qualities.

We do not believe it would be profitable for the dairyman to endeavor to modify his breed so far as to make it satisfactory for the beef-maker's purpose. The special dairy breeds are needed by a great and increasing number of farmers throughout the country. Such cows can earn profit on high-priced land better than can the beef or dual-purpose breeds. But the special-purpose beef breed, the kind whose call is expected to suck its dam, is not well adapted to intensive agriculture. Beef-raising is most economically carried on with dual-purpose stock, the cows of which will yield profitable messes of milk for about nine months of the year, and then dry off in time to drop hearty, well-nourished calves, capable of being grown on skim milk into high-class, if not strictly fancy, bullocks. Such a steer, having no back account to square up, in the form of its mother's board bill, will usually distance the special-purpose beef-bred steer, so far as profit is concerned.

It is this strain of cattle that is needed by the farmers on our Western plains, as well as by a great number throughout Eastern Canada, who wish to keep some other cattle stock than cows, content if necessary to accept a little less profit per annum, if by so doing they may avoid the necessity of having the whole family tied down continually to the milking and other chores entailed by a large dairy herd. The association of substantial beef type with fairly liberal dairy capacity is a practicable aim not unduly difficult of accomplishment, if good judgment and the right means are employed.

AN AMERICAN VIEW ON THE MILKING SHORTHORN.

A very true and reasonable article on the milking Shorthorn is contributed to the Wisconsin Farmer by A. J. Meyer, who disposes of the question as to whether there is such a strain by remarking, "We have the cows, why waste words?" At the same time, he admits that the repeated attacks on the general-purpose Shorthorn are not without justification, or at least without cause, and the cause he finds in the disappointing character of Shorthorn cattle in not a few herds advertised as dual-purpose. He refers to the advertisement of one breeder he knows who offers "young bulls from heavy-milking dams," and remarks that some of the heavy-milking dams in this herd give milk enough to raise a calf in good shape, but not one would pay for its feed by the milk-pail route. Another advertises dual-purpose Shorthorns on the strength of one heavy-milking dam he owned long years ago. Another breeder once owned a fine herd of milking Shorthorns, but got the pedigree craze, and, by a process of substitution and elimination, he brought his herd, in ten years, to the point where it contains one lone individual that might be rated as dual-purpose, the others being barely able to raise their calves, yet he was so proud of his work that he boasted of having the finest bred herd of Shorthorns in the State.

"Little has been done," he says, "to counteract these practices. Much needs to be done. What we need is active co-operation among the breeders of milking Shorthorns, to the end that proper and uniform standards of performance be established, authentic milk and butter records be officially determined, and reasonable encouragement to the breed be offered at agricultural fairs." In the fixing of performance standards, he advises moderation, combining in fair degree the qualities of beef and milking ability.

"In arriving at official milk and butter records, the breeder of milking Shorthorns can do no better than to emulate the example of the various dairy organizations that have provided for weekly, monthly and yearly tests by qualified and impartial officials at an entirely reasonable cost. These records should be collected and published in such a form as to make them readily accessible to the general public, in some manner similar to the Advanced Registry system of the Holstein-Friesian Association of America. The direct benefits to be derived from such a system of making public officially-endorsed milk and butter records are too evident to require discussion. The man who breeds 'pedigrees,' and the other fellow who propagates young stock 'from heavy-milking dams,' will have 'to put up or shut up.' Then will speculation, guesswork and wilful deception cease. The day of the milkless milking Shorthorn will come to an end and a new day will dawn, wherein values will be decreed and records conferred upon a basis of officially-guaranteed utility.

"Until the breeders of milking Shorthorns awaken to the necessity of uniform co-operation in some such manner as I have indicated, it is hardly reasonable to expect the agricultural fairs to offer much in the way of encouragement. What little effort has been expended by the fair associations heretofore in attempting to bring out representative exhibits, has been, as a rule, so badly misdirected as to disgust, rather than encourage, the would-be exhibitor. Yet, it is the indifference of the latter that is mainly responsible for any shortcomings in this direction. With the dual-purpose Shorthorn industry in its present condition, each man acting as a separate unit, establishing his own standards, and doing absolutely nothing towards the advancement of the industry as a whole, how can we expect any board of fair managers to offer us the encouragement they would like to?"

"As I see it, the road to completest success, and greatest service to the public, so far as concerns the breeders of milking Shorthorns, lies by the way, first, of national and local organization; second, by the establishment of national standards of excellence; third, by the determination of official milk and butter records; and fourth, by the establishment of an advanced registry for cows that attain to the required standard. The cause is a good one; success is sure. Let us stand shoulder to shoulder in a national crusade for the cow that more than any other has stamped its influence upon American agriculture—the milking Shorthorn."

That herd bull should have two good ends, says an admirer of the milking Shorthorn cow. He should be strong back of the shoulders, and his dam and granddam should have been good milkers. The heifers should be kept growing nicely, not loaded down with fat, and they will give milk.

THE FARM.

WIREWORMS, CUTWORMS AND WHITE GRUBS.

Editor "The Farmer's Advocate":

I notice in "The Farmer's Advocate" a discussion on cutworms, or wireworms as we call them, Professor Fletcher, of Ottawa, being referred to as somewhat puzzled as to how best to deal with them. We know his earnestness and ability as an investigator, he not being like some, who never have any difficulty about anything. I have discovered that these pests on the approach of winter go down some depth into the ground and become dormant. By plowing at this season, say in the month of November—the nearer winter the better—the birds, combined with the severe weather in winter, complete their destruction. My practice has been to plow deeply at this time of year. The white grub which infests meadows I have found by observation almost exactly at the depth of eight inches at this season. I like plowing at this season for other reasons. The thistle is also dormant at this time, and being cut deeply under, a great many of the roots will be killed; and by sowing early the following spring they are greatly weakened. Early plowing has been advocated for the destruction of weeds, but is only a partial success. The seeds of a great many weeds will not germinate till the following spring. To fight weeds successfully, the stubble land should be pastured closely in the fall, preferably by sheep. Eaten by sheep the seeds will not germinate. However my theories may be criticised, the practice has been eminently successful.

AN OLD FARMER.

Perth Co., Ont.

Note.—Wireworms, cutworms and white grubs are three entirely distinct classes of insects. Wireworms are slender, cylindrical, yellowish or reddish-brown, tough and shining grubs, with flattened heads and dark jaws. When full-grown they are about half an inch long and one-twelfth of an inch broad. They are the grubs of a large family of insects, known as click beetles, and of all our soil pests they are the most difficult to combat. Short rotation of crops is recommended. Corn, followed by barley or rye seeded to clover, the clover sod to be broken up after the first crop and the rotation repeated, is a very good system for combating wireworms. Some farmers claim to have obtained good results by plowing twice in the same autumn, the first time in August, the land to be well harrowed a week later and then cross-plowed in September, but a thoroughly effectual means of ridding land of wireworms has yet to be found.

Cutworms are smooth, greasy-looking caterpillars, of some dull shade of color, similar to the ground in which they hide during the day. There are numerous species, varying in their season and habits of attack. Most of them work above the surface and cut off the young seedlings. Certain species, however, feed almost entirely upon the roots, and work chiefly underground. These are the most difficult to reach. The surface-feeding kind may be controlled by scattering poisoned bran lightly among the crops where they occur. Cutworms are an especial pest of the vegetable-grower. Among farm crops those most attacked are oats, wheat, corn and grass in meadows. Clean farming, including rather early fall plowing, is a specific means of controlling cutworms. The idea is to get rid of the tall vegetation, which would otherwise attract the moths in the fall when laying their eggs. Pasturing with sheep is helpful in this connection, although sheep should not be pastured in autumn on new seeding, as they graze too close for the good of the clover.

White grubs are the larvae of the large May beetles, or June bugs. The eggs are deposited in the ground, mainly in grass lands, from one to three inches deep, and hatch in from ten to eighteen days. The larva is a large, soft, white grub, about an inch and a half long, usually curled at the rear end. It takes three years to develop, and is sometimes very destructive in old pastures, and, in gardens, to strawberry plants. The first summer it feeds on roots and burrows deeply into the ground as winter approaches, returning again the following spring and doing a great deal of harm, by eating the roots of grasses and many other kinds of plants, particularly corn and potatoes, the injuries being most noticeable in the second year after sod has been plowed down. Swine and poultry are very fond of the grubs, and if pastured on such a crop as rape, pigs will hunt out many of them. Clover is seldom attacked by white grubs, hence a short rotation in which clover occurs frequently will tend to prevent increase of these insects. Late, deep, fall plowing is also recommended, and will be especially effective if swine or poultry can be given the run of the field.

From the foregoing it will be clear that our correspondent has followed a first-class method for combating the white grub, and it is commendable for other reasons, though the same can hardly be said as to its effectiveness for controlling wireworms and cutworms. These two insects, when bad, require special precautions, as indicated above. As a general practice, however, we can strongly advise short rotations of three or four years, in which hoe crop and peas follow sod, with grain seeded to clover and timothy after the hoe crop and peas, the land to be left not more than one or two years in meadow. Wireworms and white grubs revel in old grass sod.