

t favorable for the activities of the thin leaves of deciduous trees are for carrying on photosynthesis (the carbon dioxide of the air and the soil into starch) respiration, the eliminating of surplus water, are not at all well adapted to with-yness incident upon the cold of win-terly they are shed, this shedding in a manner which we have already en dealing with plant physiology, are then sealed up in a practically overing, so that at a time when lit-ter is taken in, no water is lost. consider the deciduous forest forma- not only the trees which give it the herbs which grow on the forest also have their adaptations. Many plants which put forth their leaves early in the spring, before the leaves above them have attained full size, at a time when plenty of light They are all perennials, with urts, bulbs, corms, or root-stocks ready for a rapid development as ditions in the spring are fit for is known as the vernal habit, and of the hardwood bushes which are own as "spring flowers" possess it. plants as grow in the forest, and leaves and flowers later in the se- are adapted for carrying on their ded light.

ow considered in turn the different ns which are found in Canada, and ns of the plants which compose ve shown that viewed in this new y of botany takes on a new lease ver, we leave our study of plant e miss the most vital point of the dynamic point of view, the idea this aspect we shall deal with in concluding note on plant ecology.

THE HORSE.

Swiftness in Horses IX.

SPEEDY CUT.

or speedy stroke is the name given to the inner surface of the fore leg. the knee, usually on the lower por- surface of the joint. The injury the horse striking his leg with the osite foot. In rare cases the in- the knee, and also may be between the pastern. Horses whose toes when standing are very liable to as, when the foot is raised and d, its toe turns inwards towards g, and the seat of contact will, end upon the height of action. with reasonably high action will ove the knee when trotting, but r any horse whose conformation the accident may do so. When a mself in this way he is liable to intensity of pain it causes, and the safety of his rider or driver, injure the front of the knees by tact with the ground. Horses tion predisposes to the accident except for slow work, and espe- saddle work. Horses on whose ars, enlargements, etc., which in- pounds from this cause, may justly sound, since they indicate a fault any time, interfere with the an-

While lameness is not always mptoms are easily detected. There and heat and tenderness of the In some cases there is ap most cases the wound is due to no wound of the skin is notice- ling varies greatly in size and may be comparatively small and and puffy, indicating to the touch a fluid, which may be either ially the former. There is heat, erness to the touch, and it may accompanied by lameness. When as been severe, and near or upon will be lameness more or less

Preventive treatment is much ative. Horses that are predis- ury, on account of conformation, with the idea of preventing it, quite light shoes on the fore feet the height of action as to cause the opposite leg between the when, unless the horse rolls to extent he will not strike (horses ar action noted are said to her cases where action is low, hits his fetlock, shoeing with so increase the height of action to go higher than the joint, but the knee, hence avoid striking. In use of three-quarter shoes will

prevent the accident, but in many cases, where the ill-conformation is well marked, no method of shoeing will suffice, and all that can be done to avoid the accident is to wear knee boots. While the conformation noted predisposes to the acci- dent, it will sometimes be noticed that horses in which this conformation is well marked will go clear, while in rare cases those which stand rea- sonably straight will strike. When the injury has been inflicted, treatment will depend upon the severity of the wound. Of course, a recurrence of the stroke should be avoided, either by giving the animal rest, driving at a gait at which he is not liable to strike, or wearing knee boots. If there be simply a swelling and tenderness, with- out the formation of fluid, the application of hot or cold water, followed by an anodyne liniment, as one made of 4 drams acetate of lead, 1 fluid oz. laudanum and water to make 8 fluid oz, several times daily will reduce the swelling and inflammation. When the soreness is well marked, hot water is probably better than cold, as it is more soothing, but it has not so much tendency to reduce swelling. In many cases hot water is used for a day or two, and then, when the sore- ness has been lessened, cold is substituted. In many cases where bathing is advisable, either quite hot or very cold water should be used; warm water does little good. When the enlarge- ment contains any considerable amount of fluid, either serum or pus, an operation is necessary. If quite a small quantity of serum is present, (serum consists in a quantity of water fluid con- taining a percentage of blood, it being caused by a wounding of the small blood vessels and conse- quent effusion into the tissues) the treatment noted may be effective, and the fluid removed by absorption, but if the quantity be considerable, or if even a very small quantity of pus be pres- ent, the abscess must be opened. In most cases the fluid is serum. This is always the case when the enlargement has appeared suddenly, but when the contusion or striking has been frequent, but not severe enough to rupture the blood vessels, the swelling will gradually appear and usually contains pus. When an operation is necessary care should be taken to not lance too deeply, especially when the joint is involved, as cutting through the capsular ligament would be a serious matter, causing that condition known as open joint. An opening of considerable size should be made, in order that it may remain open and allow escape of pus that will form in a few days after the operation. Some recommend a small opening into which the operator inserts a piece of tow each time after dressing, to prevent closure, but we have found better results from making a free opening, into which it is not necessary to insert anything. The cavity should be flushed out twice daily with a 4 per cent. so- lution of carbolic acid or other antiseptic until it is filled and the wound healed. If an enlarge- ment, due to a thickening of the tissues, remain repeated blistering will reduce it, and, of course, means must be taken to prevent a recurrence of the injury, as repeated operations will result in a chronic enlargement of greater or less size, that cannot be reduced. WHIP.

The Colt's First Winter.

The care and feed the colt receives during the first winter of its existence, is a determining fac- tor in the size and temperament of the grown horse. If, through lack of proper feed and at- tention, a colt is stunted during the first year, it seldom fully recovers. The colt should be taught to eat grain long before it is weaned, so, that there will be no serious setback when it must depend entirely on grain and roughage for its existence. The aim should always be to sup- ply bone and muscle-forming fodder. Oats will always form the basis of the concentrate part of the ration, with wheat bran or linseed meal added if conditions warrant it. For roughage there is nothing better than good clover hay for the colt. So, where a person can feed five or six pounds of oats, and nine or ten pounds of good, sweet, clover hay per day, the young ani- mal will not suffer for feed. A carrot or turnip added to the ration daily will be beneficial. The hot, stuffy stable is not ideal for the colt. A well-ventilated box stall is better. It need not be warm so long as it is dry. As with all young animals, exercise is essential to the de- velopment of muscles.

If the farmer is too busy to pay much atten- tion to the colt, why not entrust its care to the boys? They usually enjoy looking after and training a young animal. The colt that becomes used to the halter, the harness, and even to be- ing driven by the boy, will be a better horse than the one not handled.

Weekly Visits Appreciated.

"The Farmer's Advocate" has been a weekly visitor to our home for a great many years, and we all look forward to its arrival with pleasure. It is appreciated by young and old.

Peel Co., Ont.

DAVID CORDINGLY.

LIVE STOCK.

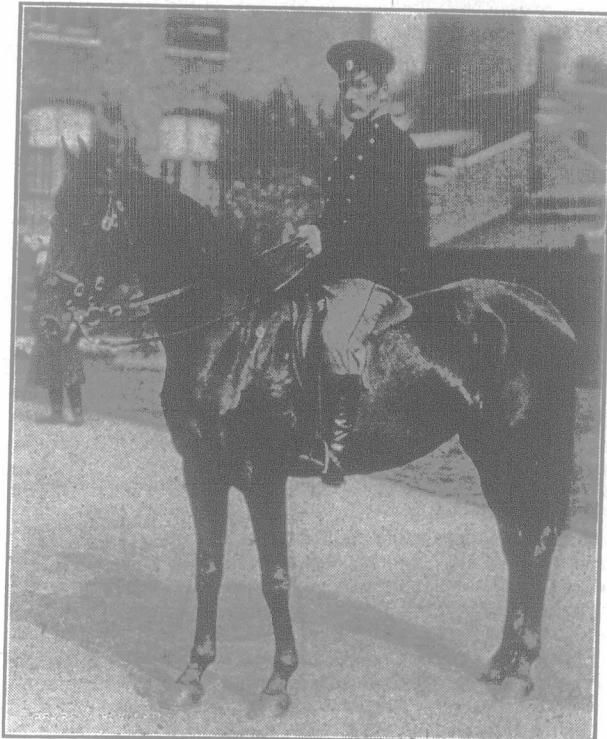
English Live Stock Notes and News.

Editor "The Farmer's Advocate":

The high prices of meat in England during 1915 drew forth unexpected but very welcome supplies to Britain of Canadian beef, amounting to some 6,280 tons, of which about 3,600 tons came to the United Kingdom, the remainder go- ing direct to the Continent. Had more refriger- ated freight been available, considerably larger quantities could have been shipped.

In view of Canada's loyalty as a British Dominion it is gratifying to be able to record this new departure, and opportune to express a hope that it may be found practicable to increase materially the contribution thus made to the food supply of the Empire from within its own bor- ders. The Canadian Government is now alive to the desirability of fostering the export trade and putting it upon a permanent footing as soon as possible.

The total receipts of all kinds of frozen and chilled meat into the United Kingdom in 1915 amounted to 664,508 tons, against 694,427 tons in 1914, and 720,257 tons in 1913. The valua- tion of these arrivals was £39,671,913 in 1915, compared with £30,059,527 in 1914, and £26,648,161 in 1913. The quantities last year fell short of the previous year by only 4.31 per cent., but the valuation made at time of arrival in- creased by about 33 per cent. Taking 100 as indicating the average of top quotations recorded for twelve leading descriptions of frozen meat for the past ten years, the index figure for 1915 was 161.18 compared with 122.61 for 1914, 103.56 for 1913, 96.65 for 1912, and 86.26 for 1911. Wholesale values have risen by 86 per cent. within five years, and two-thirds of that advance has taken place since August 1914. Stated otherwise, the average prices current on Smithfield market in 1915 show an increase of over 40 per cent. since the outbreak of the war.



A Russian Officer and Mount.

The importance of frozen meat in connection with the conduct of the great war was made abundantly manifest in the course of 1914; but it was not until the beginning of 1915 that the British Government took the steps necessary to secure what was practically complete control of the industry at all stages. The requisitioning of the outputs of the freezing works of Australia and New Zealand, by agreement with the Austral- asian Governments, on terms more or less ac- ceptable to the producers, secured the main sup- plies produced within the British Empire; while the simple expedient of commandeering the British refrigerated mercantile marine effectually secured control of foreign supplies—primarily of South America, and indirectly of North America and all outside sources. These important steps, far- reaching in their consequences, were taken with a view to guaranteeing the necessary supplies, not only for the British army and general public, but also for the French army, and, latterly, for the Italian. They involved fundamental changes in the methods of carrying on a vast trade which has been built up painstakingly during the past 30 years. In order to attain the objects of the Board of Trade and the War Office, existing con- tracts were left unfilled or unceremoniously can- celled; steamers were diverted on short notice from their intended routes; the established modes of buying and selling were entirely altered; free- dom of contract ceased to exist; and at every stage the industry became regulated and con-

trolled at the will of the authorities, un- trammelled by ordinary considerations of loss or profit.

The Continent played a very much more im- portant part than usual in the year's trade, as the quantities directed to France and Italy are estimated to have amounted to over 150,000 tons, against an estimated total of only 26,210 tons in 1914.

In France, the increased consumption by the Army was met, to a large extent, by the intro- duction of these entirely new supplies of frozen meat with the result that values of French home-grown meat rose but little above normal; while in this country, the importation of meat being barely maintained and the home supplies showing no great expansion, the increased army consumption naturally brought about an impor- tant advance in values. On the whole, therefore, comparing 1915 with 1914, the civil population in France was in a better position than that of the United Kingdom, through being permitted to use British ships to supplement their home supply by importing frozen meat for the Army from Australia, South and North America, Canada, Madagascar, Brazil, etc.

Shire horses are selling at high prices in Eng- land. The entire stud of thirty-seven Shire horses, the property of the late Leopold Salomons, at Norbury Park, Dorking, were sold on January 19 when an aggregate of £12,885 16s. was secured, or an average of nearly £385. The nine stallions realized £806 15s. apiece, and the highest price for males was 3,000 guineas, paid by the Leicestershire expert, H. H. Smith- Carrington, for the twelve-year-old stallion Nor- bury Menestrel, whose stock have stood so high in the show-ring in London of late years. King of Tandridge made £2,000, falling to the bid of D. Collins, a Yorkshire breeder. The mares averaged £222 15s. and the fillies £180 10s. There were some wonderful bargains among the mares. H. H. Truman (Bushnell, Ill.) got the best mare for 220 guineas. This was the grey Abingworth Gipsy, by Sussex Menestrel, and a mare that will go right to the top of her classes in U. S. A.

There has been a desire on the part of our English Smithfield Club to eliminate from future shows of that body classes for wether sheep. The Leicester Sheep Breeders' Association are up in arms and submit that such action would be de- trimental to the interests of breeders, and espe- cially of the owners of long-wool flocks in the North of England. They ask that the classes should be included in the schedule as heretofore. The Council of the Smithfield declare that rear- ing wether sheep is a wasteful business in these days of early maturity.

British breeders of Herefords are resenting the "boost" which is made on the other side of the Atlantic in regard to the alleged superiority of American stock over English. At a recent meet- ing of the British Hereford Herd Book Society, Sir John Cotterell proposed, and it was agreed, that a letter be sent to the American Hereford Journal and other American papers, stating the exact position, and showing that if the policy of cutting adrift, one from the other, was adopted, it would be detrimental to the American Hereford breeders, the majority of whom rely periodically on a fresh fusion of blood from the home coun- try, in order to keep up their herds to the proper standard.

In 1915 Canada sent to Britain 281 horses worth £68 2s. 4d. each, as against 504 worth £40 18s. 10d. each in 1914. War horses are not counted, of course.

In 1915 Canada took 187 head of pedigree cattle of the declared value of £32 8s. 1d. apiece. In 1914 she bought none. She took 140 pedigree sheep, worth £5 15s. 5d. each, as against 427 worth £6 6s. 8d. apiece in 1914.

For 1916 the British Government has granted £26,500 in aid of light horse breeding, and £40,000 to help the scheme for improving heavy horses, cattle, pigs, and the extension of the milk recording scheme, also the employment of live- stock officers at agricultural institutions in Eng- land and Wales.

Good work at improving pedigree stock has already been accomplished under this scheme, and Yorkshire, Durham, Cumberland and Northum- berland are among the first counties to have something tangible to show for the work. Cum- berland has formed a new pig herd book for the Cumberland type, a large white of rare size with good hams. We are getting ready for peace times, when we shall have the goods to once more deliver to the nations of the world.

ALBION.

Subscriber for 32 Years.

I have been taking "The Farmer's Advocate" for the past 32 years, beginning when I was 18 years old. I don't think we could farm with- out it. I am sending you seven names; all young men. I have told them they could not afford to be without "The Farmer's Advocate." Elgin Co., Ont. WM. H. JOHNSON.