

FOR FARMERS' STOCK BREEDERS AND GARDENERS

Proper Feeding For Rabbit Farm

Proper feeding is essential to success with every kind of live stock and rabbits are no exception to this rule.

The time of giving the different feeds is optional, one breeder preferring to give the feed of all-grain and roots in the morning and the all-hay at night.

Feed should never be allowed to remain lying on the floor of the hutch to become soiled.

Full information on the feeding of rabbits, together with tables showing the composition and digestible nutrients of feeds, is contained in the bulletin "The Feeding of Rabbits," issued by the Dominion Department of Agriculture

Seed Treatment Reduces Heavy Loss

Farmers are now busy making preparations for spring seeding. Good crops and heavy yields are directly associated with the use of clean healthy seed of the best quality.

In applying organic mercury dusts to the seed, care should be exercised to follow instructions as outlined on the container.

Further information regarding seed treatments may be obtained by writing the Dominion Botanist Division of Botany, Central Experimental Farm, Ottawa, Canada.

Look over tubers in the basement for mold and excessive dryness. Seed is one of the cheapest garden materials; order enough.

Let magazines, catalogs and books play an important part in your first side gardening; then, let the information you gather form itself into a plan on paper.

ANIMAL HUSBANDRY

INJURIOUS INSECTS

In a series of articles an attempt will be made to throw some light on questions regarding insect pests, their habits, life histories and control, without the use of unnecessary details or unfamiliar words.

The need for more accurate and complete information regarding common farm pests is sufficiently emphasized on the mere consideration of the damage resulting from the army worm, zebra caterpillar, turnip aphid, canker worm, the forest tent caterpillar, etc.

Insects are usually known as bugs though a bug is a name which should be confined to one special group of insects. The term bug is often applied to many small forms of animal life which are not insects at all.

If we take an earth worm, a spider, a centipede, a millipede, and a grasshopper, we will see that they have one important resemblance in that in all of them the body seems to be made up of joints or rings.

Let us go back rather better than a century and see how matters stood on this continent. In March 1842 Henry Clay uttered these words in the American House of Representatives.

Studying the insects more carefully we see that the head bears a large pair of eyes called compound eyes, because as can be seen under a microscope, each of these eyes is made up of a large number of six-sided divisions each of which represents a distinct eye.

As has already been pointed out there is situated around the insects mouth a number of appendages called "mouth parts" and these may be fitted for either biting or sucking.

When the mouth parts are formed for biting, the insects feed upon solid food, biting off pieces of the food plant with a pair of jaws which work sideways instead of down.

After the seedlings appear, watering is still important. Good drainage, between which the soil dries somewhat without becoming crusty and hard, should be the rule.

When transplanting time comes, take up the seedlings with as little disturbance of the roots as possible, and get them back into the ground as soon as you can.

NEWSY NOTES

A NATURALIST'S CALENDAR

In September, then comes the check, the change, the fall, as Tennyson says of another occasion. The night closes in earlier, and with the advent of cooler weather our tourist visitors from other lands depart.

Out wheat, Sept. 1, 1916; this was hauled in Sept. 10th. Slight frost, night of Sept. 1, 1923. Potatoes killed by blight Sept. 1, 1927—this year, but very few potato "bugs" (really beetles).

Tomatoes ripe, Sept. 2, 1931. Maximum of 79 deg. recorded at Charlottetown, Sept. 2, 1930. Bad N. E. rainstorm, Sept. 4, 1924. Wind N. E. Sept. 5, 1913; getting into a bad rat again! Cucumbers, etc., frozen night of 4-5 Sept. 1916.

Nuptial flight of ants, Sept. 6, 1926, followed by rain on 7th. Note Sept. 7, 1923; "Insects scarce this year, very cool summer." W. Wind, cool, 52 deg. in house, Sept. 7, 1917. Wonderful display of aurora at 9 p.m. on Sept. 7, 1928; again on Sept. 8, right up to zenith; followed by great storm, wind and rain, on the 9th.

Heavy gale and rain from N.E., Sept. 9, 1913. Woods full of fungi, toothstools, etc., Sept. 10, 1931. This was a bad year for harvesting grain wet weather.

Humid; water-pipes in cellar dripping, Sept. 11, 1924. Finished cutting out Sept. 13th, 1915; 14th, 1918; 15th, 1921. Flights of swallows passed over Sept. 13, 1920, migrants from more northerly regions. Birch leaves falling, Sept. 13, 1931. Cedar Waxwings plunder rowans in the lane, Sept. 13, 1934.

Observed several hundred grackles flying S.W., Sept. 14, 1929. Maximum temperature 58 deg. in the City, Sept. 14, 1933. Severe frost kills tender garden stuff, Sept. 16, 1919. Lovely weather, 68 deg. in the house, at 2.15 on Sept. 17, 1917. City reports 74 deg. Sept. 18, 1930. Leaves begin to fall, Sept. 18, 1922.

Aurora "dancing" to zenith, Sept. 19, 1919; many displays this month. Harvested garden beans, Sept. 20, 1926.

Extraordinarily wet summer in Northern Hemisphere, while a drought in South Africa destroys three million sheep and nearly eight million perish in Australia—note on Sept. 21, 1927. Flight of thousands of small Aphodius beetles, Sept. 21, 1930.

THE GOOD OLD TIMES

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HORSE MEMOIRS

EVOLUTION OF THE TROTTING HORSE

O. E. MACKENZIE

While pursuing the pages of "The Horseman" of December 17th, 1921, the writer noticed an article on the evolution of the trotting horse and I feel that it would be of interest to the horse fraternity of this Province to reproduce at least parts of this article.

In the present century nothing has been more rapid in its inception, growth, development and present form of advancement than the trotting horse. He came from original elements that had little trotting inheritance or development.

Neither Imported Messenger or Imported Grand Bashaw were brought to America because of any trotting instinct. The former was a retired running horse from England of indifferent turf success. The latter was a little black pony from Barbary, beautiful to the eye, but only useful as an ornamental saddle horse.

Justin Morgan was not bred for trotting purposes and he was noted more for his pulling matches and his quarter-mile dashes, than for his trotting capabilities. Neither one of them could trot a mile to saddle in four minutes.

From these unpromising beginnings and within a short space of less than a century, have evolved the swiftest harness horses in the history of equine race, until at the then time 1891, a horse would not be recognized for his speed qualities unless he could trot better than 2.30 Philadelphia may justly be termed the cradle of the trotting horse.

The Hunting Park Association was formed in that city in 1828 and the first recorded race in America took place within the limits of the City of Brotherly Love in 1810. The record is worthy of reproduction in this connection.

The Sporting Magazine of London England published a letter from a "Constant Reader" dated Philadelphia Sept. 3rd, 1810, in which he reported "On Saturday, August 25th, a chestnut horse called 'The Boston Horse' trotted in a sulky one mile in two minutes and forty eight and one-half seconds for a purse of six hundred dollars, to the astonishment of all present. The horse was fourteen years old and barely fifteen hands high."

The Year Book records the race of Yankee in 2.59 at Harlem, N. Y. in June 1808 but vitiate the performance by adding the note that the track was short. Then the records came in slowly in point of time. The trotter had not yet been thoroughly divorced from the saddle, which equipment he derived from the running horse.

Hiram Woodruff, William Whalen and James M. Hammill, and all the other trotting trainers, preferred the saddle to the heavy, cumbersome sulky then in use. All earlier records therefore were made by the later dispensations requiring sulky and driver, instead of rider, weighing one hundred and fifty pounds were ruled out as not according to regulations then put in force. Hence the splendid performance of Topgallant 2.43-2-3 in September 1821, and Screw driver 2.40 2-3 on May 10th at 1826, and Dexter 2.36 3-4 at Philadelphia on May 11th, 1837, are not regulation records, because they were all made under saddle and therefore deprived these noble horses of championships which they were in succession able to win.

In 1837 is the first recorded evidence that the old fashion timing watch, which marked the one third fractions on the dial, was displaced for the quarter second chronometer, and the fly-cup and split were not known for many years afterward. Watches, like harness sulky and boots marked by their gradual introduction of improvement the silent history of the evolution of the trotting horse.

Mr. Wallace gives the record of Sally Miller, in 1834 of 2.37, to harness, but other authorities give the same record to saddle. In 1844 Lady Suffolk was acknowledged the queen of the turf not only because of her saddle record of 2.26-1-2 but also of her harness performance of 2.28. From this time forward the saddle performances disappeared, although the practice continued for a long time as the old time trainers still held sway and even when Hiram Woodruff, too old to ride himself, put the famed Bude Dobe up on the noted Dexter, he made a world's record to saddle.

The mare Lady Suffolk continued her reign as given for a period of fifteen years, if I mistake not longer than that of any other horse in the trotting.

Lady Suffolk lost the crown to that wonderful little bob-tailed pony mare Flora Temple when she made the mile in 2.19 3-4 to harness in 1859. This record held for eight years when the then noted Dexter made the mile in 2.17 1-4. Dexter also held the world's record for eight years when in 1874, Goldsmiths Maid trotted a mile in 2.14.

From that day on, down through the splendid careers of such noted horses as Smuggler, Lulu, Hopeful, Hazy Cobb, Phyllis, St. Julian Jay-Eye-See, and Strambull, still down into the mare dazling brilliancy of Arion, Nelson, Alleston Polo Alto, and Maud S. and so on along the line to the present.

in the Old Country, and well worth the attention even of my masculine readers. It is called "Good Things in England" and may be consulted at the Public Library, Charlottetown.

NEWSY NOTES

SOME ASTRONOMICAL MEASUREMENTS

When I first began to take notice of the stellar universe, it was the custom to grade the visible stars into six classes. This convenient system originated with Hipparchus, of Nicaea, an astronomer who lived in the second century B.C. The brightest stars visible to the naked eye, he said, were in class one or, as we afterwards made it, were "of the first magnitude." Those stars at the extreme limit of human vision were of the sixth magnitude. When astronomers invented exact photometric apparatus they abolished the old classes and set up a new scale. Taking Alpha Centauri as magnitude 0 (zero) they graded upward by means of—(minus) figures; and downward by unmarked or plus figures. The series ran—4;—3;—1; 0; 1; 2; 3; 4; etc. Each magnitude is 2 1-2 times the one below it; a star of magnitude 0 is 2 1-2 times as bright as a star of magnitude 1.

On the 12th of February, 1937, the planet Venus was—4.3 magnitude and therefore 100 times brighter than Regulus, a star of magnitude 1. Readers may figure this out for themselves.

Sirius, the brightest star in the sky has, in the new notation, a magnitude of—1.6; Alpha Centauri (long thought to be the nearest of the fixed stars) has a magnitude of 0.0 (some say 0.3); and Aldebaran a magnitude of 1.0. Therefore Alpha Centauri is 2 1-2 times, and Sirius 11 times, as bright as Aldebaran.

I cannot say that I regard this scale with a favorable eye; the zero in the middle and the use of the minus sign seem rather clumsy expedients; but there they are!

In some special cases the distance between the earth and the sun is used as an astronomical unit of measurement, just as we use the mile in terrestrial distances. This is equal to about 92,900,000 miles, but large as it is, it is too small for the measurement of stellar distances. It was necessary to seek a longer "yardstick" and it was here that the light-year came in. Light travels 186,000 miles in a second, which figures out to 5880 billion miles (or 63,310 astronomical units) in the year. This distance—nearly six trillion miles—was adopted as the unit of measurement of stellar distances, and named the "light-year."

The star nearest to the earth is Proxima Centauri, a faint telescopic star of 11th magnitude, about two degrees from the Alpha Centauri mentioned above, and about 4 and 1-5 light-years away. Other stars, lying far out in the universe, are said to be distant hundreds of millions of light-years.

The "parsec" is another astronomical measure, equal to 3-26 light-years. It has to do with angular measurements and is composed of the first three letters of the word "parallax" and of the word "second." A Kiloparsec is one thousand, and a megaparsec is one million parsecs.

A NEW DISH

I fancied I knew most things about my native county, but here came something new—from an American magazine! Truly one lives and learns.

"In the bleak English County of Northumberland a favorite dish at this time of year is pork-and-apple pie. Hearty and tasty, it's just as suitable here as lastery."

"Thinly slice 3 pounds lean fresh pork and cut in strips. Line a glass baking-dish with piecrust, put in a layer of pork, dust with salt, pepper, and a little powdered sage, then put in a layer of tart apples sliced and sprinkled lightly with brown sugar. Repeat layers until dish is full. Top layer must be apples. Dot with half-inch cubes of bacon fat, pour on one cup cider, cover with thick piecrust. Cut two good-sized vents in the crust, brush over with milk, bake one and one-half hours in moderate oven."

Serve it hot with boiled cabbage. Looks good all right, but quite new to me. The people over there, who are fond of viands of a solid character, made a pie similar to the above with layers of sliced bacon alternated with layers of egg, and furnished above and below with crust. This was baked in a deep saucer, and was used on occasions like picnics or hikes. We nicknamed this "geological pie," from its strata when cut.

On Sundays or festive occasions the miners' wives made a rich cake called a "singin'-hunny," a hot cake made with flour, currants and butter, and baked on a "griddle"—a round disc of iron with a ball handle—over the open fire. As it baked it hissed, which was the "singin'."

The Northumbrians had a great fancy for "black-puddings." These resembled sausages but the filling was composed of hog's blood, thickened with oatmeal, and liberally mixed with cubes of fat pork. Salt, pepper, and sage, were used as seasoning. The black-puddings were fried, as we fry sausages. This comestible was known in very early times and is mentioned in the humorous old ballad of "King Henry II, and the Miller of Mansfield."

There is a kind of historical cookery-book, telling of many dishes peculiar to various localities

FERTILIZERS

FARMERS ATTENTION

We have made arrangements to deliver Fertilizer (2 tons or over) to our customers at their barn, who live within a radius of 12 miles of CHARLOTTETOWN, at the advertised delivered cash price basis.

Another reason for wanting you to book your order early is because there is always a shortage later in the season, with an ADVANCE IN PRICE OF ABOUT \$2.00 per ton.

A. HORNE & CO.

CHARLOTTETOWN

Want A Good Lawn Here's How To Get It

Just as soon as the soil is dry and firm enough to walk upon after the snow has disappeared is the time to commence operations for ensuring a good lawn. The first thing to do is to remove all the dead grass by giving the lawn a thorough raking and attention should be directed to fixing up the bare patches by sowing fresh seed. The seed should be broadcast evenly on the bare patches after they have been raked to the depth of two inches. The seed should be covered lightly with a sprinkle of sifted soil and packed down firmly. The patches should be kept moist, but not flooded, for at least two weeks through the application of a fine spray.

Fertilizer is necessary for the when the record has fallen below the two minute mark and where the King's sport is the King of sport games not only in North America where it is practiced, not only in every state of the American Union and every province in Canada, but has spread to almost the utmost parts of the world.

But let us turn from statistics to the more consequential phases of this evolution. We find that such men as staid professors of some of our leading colleges have made the trotting horse the theme of lectures, without apology or shame, and whereas in the earlier years of trotting evolution leaders frowned on this sport as a gamble, yet even fine ministers of the gospel have been successful breeders of the trotting horse, notable among whom I might mention Rev. William H. H. Murray, who was not only a breeder but was also the author of "The Perfect Horse" a valuable book on instruction to breeders.

I might also mention that Rev. William H. H. Murray was the breeder of "All Right," so well known in this Province.

In this story of evolution, which I have so imperfectly sketched from the beginning of the eighteenth century, I might have still gone back ages and recounted how in the misty ages of the past we read of the war horse of Job, the Oriental horse of Mohammedism, the Chariot horses of the Roman Emperors, the Barb horses of the Moors; the Persian, Arabian and Turkish steeds for saddle purposes, as well as the heavy draft horses of the earlier Czars of Russia, on down through years of development and selective breeding until we have now the two minute trotter and the almost perfect type of draft and general purpose horses, suited to every use of man.

Should this brief sketch of the evolution of our present day trotters and pacers, be interesting to the readers of Memoirs, I will continue with the story of the colt trotters not only of our own Province but of the whole equine race.

Arrivals at Carter's Seed Store

- ONION SETS & SHALLOTS
GARDEN PEAS (for early planting)
VEGETABLE and FLOWER SEEDS for Hot beds and Early planting.
GLADIOLI BULBS
DAHLIA BULBS
MIXED LAWN GRASS
GARDEN and LAWN FERTILIZER
BIRD SEED and PARROT FOOD

A few copies of SEED CATALOGUE

Carter & Co. Ltd.

BABY CHICKS

Our specially Selected stock assures you of strong, high-producing, disease-free chicks. A visit to our Hatchery will convince you of the importance of cleanliness in giving you disease-free chicks. Barred Rocks, a speciality, also White Leghorns and White Wyandottes. Order now to insure booking your order. Special prices on Brooders, Feeders, Waterers, etc.

THE P.E.I. CO-OPERATIVE HATCHERY

Protect Your Crops With DuBay Products

- NEW IMPROVED CERESAN controls smutt and other diseases on cereal grains
NEW IMPROVED SEMESAN BEL controls scab and rhizoctonia on potatoes
NICOTINE SULPHATE 40% kills insects on plants and poultry ask your local dealer for them
CANADIAN INDUSTRIES, LIMITED (Fertilizer Division)

R. E. Mutch & Co., Ltd. Wholesale Distributors for P. E. Island



COLD FRAME IS AMATEUR'S BEST FRIEND

In those tantalizing weeks of early spring, when a warm sun one day sets the garden fever burning and freezing weather that night chills the courage, a cold frame is priceless.

Everybody needs one, though he may have a hot-bed, or even a green-house in addition. To the great majority of home gardeners, the cold frame will suffice for all real needs in early sowing.

Easy to build, and simple to operate, it enables seeds to be sown several weeks before it would be safe to sow them in the open.

Success in cold frame practice depends upon the judgment used in timing the sowing, so that when the transplanting date arrives the danger of frost injury is so small, depending on the length of germinating periods, which vary greatly in flower seeds, and on the tenderness of the seedling plants.

When transplanting time comes, take up the seedlings with as little disturbance of the roots as possible, and get them back into the ground as soon as you can.

After the seedlings appear, watering is still important. Good drainage, between which the soil dries somewhat without becoming crusty and hard, should be the rule.

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The Cold Frame Story—How to Build and Use It

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