APRIL 15, 1897

THE FARMER'S ADVOCATE.

kills in this section every time. Also on flax grow-ing. I would advise sowing the flax alone every time. Sowing it with oats or barley, you thresh what seed is not already threshed out, which is the part you want, and the part of the plant you don't want is all left—the fiber, which is a very hard food to digest. There has been much objection raised to binder twine being in the straw. With the flax you have the pure thing. JOHN FIXTER. Central Experimental Farm.

The Value of Corn Ensilage.

To the Editor FARMER'S ADVOCATE :

SIR,-Of course, as you point out, silage must vary greatly in feeding value in accordance with the kind and maturity of the corn, and still more largely in accordance with the amount of water contained in the silage. I consider a fair basis for estimating the feeding value of silage as compared with good quality hay to be in accordance with the relative amounts of dry matter in each. Well-matured corn silage will contain from 20 to 22 per cent. of dry matter, while well-dried hay, as taken from the mow during the winter season, contains 85 to 90 per cent. In other words, corn silage contains about one-fourth as much dry matter as a good quality of hay, and I consider it fair to estimate their relative values on this basis. In accordance with this plan, if a good quality of hay is worth at the farm \$10 per ton, corn silage would be worth \$2.50; or if hay is worth \$12, corn silage would be worth \$3 per ton. C. S. PHELPS, Prof. of Agriculture.

Storrs Agri. Exp. Station, Conn., U. S

The London Hackney Show Champion.

now six years old, was sired by Danegelt (174), and out of Jessie (682) by Sir Charles (769). In 1895 he won 1st prize at the London show; in 1896, 1st and reserve champion; and in his last contest at that important exhi-bition he carried off 1st prize, champion cup, gold medal and challenge cup as supreme champion. He is of beautiful chestnut color, and was referred to by a Scottish reporter as easily the bonniest horse in his class, full of quality, and so evenly balanced that one can hardly believe his size (over 15.2) is as quoted.' His shapes, actions and manners are perfect, which, after all, might be taken for granted upon knowing his position at the end of such a contest.

Prize Corn Growing.

HEAVY MANURING - THOROUGH CULTIVATION - CAREFUL

SEED SELECTION. Replying to your request that I supply you with a full statement of the conditions connected with the production on one acre of my farm of 146.15 bushels of shelled corn, 11 per cent. moisture, with which I won first prize in your corn-growing contest, I send the following particulars :

The character of the soil was second bottom clay loam, with a yellow clay subsoil at about twelve inches below. This particular acre was

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by selection. I select my seed corn as it is husked, putting it in a dry, well-ventilated place. After it has partially dried I re-select it, throwing out all ears not up to a certain standard. After this I go through the entire pile and select ears that are as near the exact type of my ideal of a perfect ear of corn as it is possible to get. This I plant the next year on the best site for corn, and from this I select the most of the seed the following year. The Learning corn as I received it was a good length, not overly deen grained corn. My a grant has been been not overly deep-grained corn. My experience has been that as you widened the grain by selection it inclined to shallowness of grain and slenderness of ear, and at most could only extend around the cob; hence, I have increased the circumference of the ear without materially increasing the size of the cob by selecting narrower, deeper grain.

I planted the seed May 14th, check-rowing three feet four inches each way, aiming to drop four kernels in a hill, and covering about two inches

deep. I used a Barlow two-horse planter. Two days after planting the land was rolled, and the roller was followed at once with the Scotch harrow. The corn was cultivated four times with a two-horse, tongueless cultivator, beginning when about five inches high and working it about once a week. I think the preparation of the soil before planting, and the cultivating of the ground after planting and before the corn is up, is of more importance that after-cultivation. I want my ground fine enough for a good seed-bed and firm enough to carry an ordinary horse while pulling the planter, not letting him sink deeper than half the depth of his hoofs. Great care was taken to have the ground well firmed and never to leave the rolled surface exposed to the sun or rain. The ground was not handled except when a little on the dry

will hardly be necessary to add that rape and oats will not be sown together in this neighborhood T. P. HART. again. Oxford Co., Ont.

[NOTE.-This is probably an extreme case, but it is well that it should be published, and our thanks are due Mr. Hart for giving his experience, that others may govern themselves accordingly. A number of correspondents have commended the practice, and we believe many have had satisfactory results. In ordinary seasons the rape, we believe, does not grow high enough before harvest to be troublesome, but comes on freely after the grain is removed.—EDITOR.]

The Pea Crop.

One of the most important crops the farmer grows is peas. It is important as a food crop, and it is not an exhaustive plant to the soil. For a number of years it has been the leading crop in Prince Edward County. The fancy varieties are grown here mostly and throughout the Bay of Quinte district. From the present outlook it seems very probable that this industry will fail us for this year at least. This is due to a reduction in the price of all fancy peas of 20 per cent. and the threatened American duty, which is practically prohibitive.

In times of depression and uncertainty as to the price of grain the farmer turns to the dairy cow as a source of profit. In the production of either beef or milk pea meal is a very valuable part of the grain ration. Its chief value as a food lies in its flesh-forming properties. It contains nitrogen, which is the most important element with which the farmer deals. Plants in their growth require The Hackney stallion Rosador (4964) was bred order. The corn was possibly a trifle too thick for introgen. Some plants require it present in the Manor, Wharram, York, Eng. He is

known as nitrogen - consuming plants. Other plants have the power of drawing some of the nitrogen element from the atmosphere, and they are called nitrogen-gathering plants. Everyone knows the value food plant. The pea plant belongs to the same order of plants, and it can draw on the free nitrogen of the atmosphere, and is a nitrogen gatherer. Nitrogen-consuming plants are more exhaustive on the soil than are the nitrogen-gathering ones. If one were to examine the roots of the pea plant at certain stages of its growth, there would be stages of its growth, there would be noticed small root expansions, which are caused, scientific men tell us, by microscopic organisms present in the soil. By this agency, in a way not fully known yet, the pea plant is able to use the free nitrogen of the atmosphere, where there is an abundant supply, as four-fifths of the air is made up of that element. *Growing Peas.*—Peas will do well on all classes of soil, well drained and in suitable condition. The best sam-

in suitable condition. The best sam-ples, however, are produced on a gravelly clay soil. The seed-bed is made in the best condition when the ground is fall plowed. In the spring, before seeding, but when the ground is sufficiently dry that it will not poach, the seed-bed may be pre-pared by deep cultivation and a finely dri



ROSADOR (4964).

CHAMPION CUP, CHALLENGE CUP, AND GOLD MEDAL WINNER, LONDON HACKNEY SHOW, 1897.

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measured off on a slight rise in a practically level field; and as the past season was a very wet one here, this slight down-grade on all sides gave it the chance of receiving abundant moisture without allowing the water to stand on any part of it. This small rise made a fine place for outdoor feeding, and it has received the lion's share of the manure from that source in past years. Horses and cattle have been fed corn fodder on this ground more or less for five years preceding.

This acre has not been under plow in the last three years, but was in pasture of timothy, blue grass, and red and white clover from 1893 to 1895.

In preparing it for the corn-growing contest the past season about ten tons of stable manure was spread on the ground in the latter part of April. The manure was fresh from the horse barn, where I was fitting a bunch of horses for the market. was feeding them dry hay and fodder, bran and middlings mixed with steamed hay, ear corn, and about three pounds of oil meal per head each day.

I plowed the acre with a three-horse Imperial walking plow, about seven inches deep. No jointer was used, care being taken to stand the furrows well on edge, with just enough boldness in the moldboard to make the furrow incline safely away from the open furrow. I seriously object to the turning of the sod and manure into the bottom of the furrow with a jointer. I desire the harrow and cultivator to mix a good portion of the manure ap-plied with the surface soil. The ground was plowed April 20th, and the plow was followed, as soon as dry enough, with a Superior land roller, which was followed immediately by a peg-tooth Scotch harrow. It was again rolled and harrowed just before plant-

ing. The seed that I used was orginally purchased of J. S. Learning, and it has been grown on the farm for eleven consecutive years. I believe I have increased eleven consecutive term ten to twenty per cent. its yielding capacity from ten to twenty per cent. the machine to keep the elevator spout clear. It

but as this was a very wet season it matured large ears on almost every stalk, a noticeable feature of the crop being practically no barren stalks. The corn was cut by hand, October 13th, leaving stubs about ten inches high. It was at once husked, weighed and cribbed as required by the regulations. -J. A. Forney, Plainfield, Ohio, in Breeders' Gazette.

An Experience with Rape in Oats.

As some farmers will be contemplating sowing rape with their oats this spring, I will give them an experience in this line, then let each one decide for himself. A piece of sod (some twenty acres, in good condition) was plowed up rather late and sown with oats, and about four pounds of rape seed per acre was mixed with the oats in sowing. Nothing much was seen of the rape till the oats were five or six inches high, when the former seemed to get the start of the latter, and then for some time the oats were hardly visible.

Many of the neighbors thought the oats would never head out, the rape taking all the moisture from the ground, but a good shower of rain coming just in time gave the grain another start and it headed out and concealed the rape.

When harvest time came the binder was started and almost given up in despair, the heavy green rape making it very hard work for the three horses, and also hard on the machine. It took about four days to cut the field. There was plenty of straw, but very light grain.

The sheaves were set up and left in the field longer than usual, in the hope that they would dry out some, but had to be drawn in at last and threshed immediately for fear of heating. Still the trouble was not ended, for when they came to thresh one man had to stand by the sieves of the machine most of the time to keep them clear of the pieces of rape stalks, and a boy had to sit on top of

divided surface. Sow about three inches, north and south in the field if at all convenient, that the sun's rays may shine up and down the rows. Sow from a bushel and onehalf up to three bushels per acre, according to the size of the pea.

Very often it is advisable to sow land plaster at the time of seeding. It stimulates growth and supplies what some soils may lack—a sufficient quantity of lime. There is no doubt that wood ashes would be of great value applied to land that had been repeatedly sown to peas. Where a judicious system of rotation in cropping is followed there will be present a sufficient quantity of avail-able plant food for any crop. The land intended for pea growing should be as smooth as possible and free from rolling stone. Such a preparation will facilitate harvesting operations very much. Very often it is stimulating to growth to harrow the peas just after they are up nicely. It should be done with a light, sharp-toothed iron harrow, when the ground is sufficiently dry after a nice shower. If heavy rains should come, enough to pack the ground hard before the peas get through the ground, a harrowing is almost indispensable.

Harvesting.—One great drawback to growing peas in the past has been the difficulty in harvest-ing them. Now there are a number of good pea harvesters on the market. A number of shove-rakes are still in use, both revolving and otherwise, which do good work in long-strawed sorts. For the shorter-growing varieties there is nothing that will do the work so well as hand rakes made for the purpose.

work so well as hand rakes made for the purpose. Threshing.—In this section of the country the threshing is nearly all done with the ordinary threshing machines. The cylinder is made to run more slowly than in threshing other grain, by put-ting on larger pulleys on each end of the cylinder shaft. Fewer teeth are used in the concaves also. "Bugging."—All peas grown for the various seed companies represented in this district are "bugged";