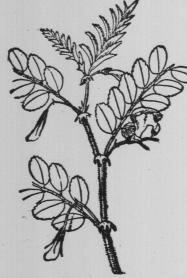


THE IDAHO PEA.

Its Seeds Are Said to Possess High.

The Idaho pea is being talked of lately as a new forage plant, and its cultivation has been highly recommended in the west on account of the value ouring cheese. We now indertain that bacterial work and that bacterial work an Idaho pea or chick pea (Cicer arietinum) has been in cultivation in eastern countries longer than any other leguminous crop. It is estimated that there



GRAM OR IDAHO PEA. are now in India 5,000,000 acres devoted to its cultivation either alone or as a bycrop with wheat. Next to the cereals gram forms the largest part of the food used in India and in portions of northern Africa, Spain and other countries bordering on the Mediter-

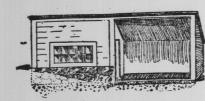
This plant is a branching annual, with many upright stems from the same root. The leaves resemble those of the leaves on short stalks about onehalf inch long. The pods are bladdery, inflated, from one-half to three-fourths of an inch long and finely pubescent, with glandular hairs. Each pod contains one, or very rarely two, large seeds, which are wrinkled and bear a fanciful resemblance to a ram's horn, whence the Latin name arietinum. The seeds are a little larger than those of the common garden pea, to which they

The Idaho pea was cultivated in 1895 and 1896 at the Colorado experiment station. Professor Cooke states that it "has demonstrated its ability to make a large growth with plenty of water and a fair growth with a very limited supply." It belongs to the pea family, and is grown in rows 30 inches apart, and the plants 60 to 12 inches apart in the rows. Its growth indicates that it

can be raised for about 1 cent a pound. About 30 to 50 pounds of seed are used per acre, depending upon whether it is sown in drills or broadcast. All authorities agree that it is better suited to arid and semiarid regions than to humid ones, the crop apparently requiring a great many sunny days during its season of growth. Better results are obtained in growing it with irrigation than without, although it makes a fair yield on comparatively dry soils. If continued experiments with this plant in the west prove that its average yield is as high as has been claimed, it will undoubtedly prove a valuable addition to the list of forage plants suitable to semiarid regions.

The gram plant is very sensitive to cold. The seed should be sown not earlier than May 15, or, at the higher altitudes, about the 1st of June, and if some of the short season varieties are procured there will be less danger of their being caught by early frosts. Gram is sown in India as a winter crop. It is said to be adapted to almost any soil from light sandy to heavy clay or loam, apparently preferring the latter. It might prove of some value in parts of the southern states as a winter crop and soil cover on lands which are unsuited to the vetches and the crimson clover. It requires only moderate amounts of moisture and is said to be injured by prolonged cloudy weather or abundant rains, which cause it to flower prematurely and thus materially af-fects the yield of seed.

A Side Hill Poultry House. If the land slopes to the east, dig into the bank so as to make a level floor. Dig a trench and fill with loose stones for a foundation. On this build a cement wall of rough stones as shown.



A WARM POULTRY HOUSE. Then cement the floor. This will give an exceedingly warm pen. The cut shows a section of the earth, the straight dotted line indicating the position of the cemented floor and the other dotted lines the stone foundation and the cemented stonework. The open scratching shed is coming to be greatly prized by poultry men, says The Farm Journal, in giving this plan.

"AGED CHEESE."

Chapter on Cheesemaking That Is Not Given Its Proper Importance by Makers of the Article.

Makers of the Article.

On the Swiss Aips, where the trade in European "ripe" cheese is the largest part of the commerce, cheese is the staff of life in the fullest sense of the word, as it makes a large part of the meal three times a day, three hundred and sixty-fire days in the year. Banishment of cheese from the table would, in those districts, seem as disastrous as to remove the sun from the firmament. Science has, of late, cast considerable light on the process of cast considerable light on the process of curing cheese. We now understand that

is made from milk that is drawn in the other. Once or twice we had consider-

4. The use of water to lower the temperature of the whey and curd should not be practiced, because, besides the fact that water often contains germs, it will wash out part of the flavor. A better plan is to dip out part of the whey and set away to cool, on ice, for instance.

5. The curd should be brought into the desired shape before it comes in contact with the air, and the hoops and molds should be so constructed as to be



MOLSTEIN HEIFER, DAISY TEXAL 2ND. Milking quarters of the winner of first prize in the Milking Test for heifers under 36

force of pressure of air is about 15 pounds thing perfectly to the cubic inch, it is easy to realize the powerful effect it must have on the just to see whether they are still alive,

excrement, or the odor from it, or is adultered with preservatives, these in-dispensable little friends, called bacteria, meet with stumbling blocks which they are unable to overcome, and cheese that is ripened under such adverse circumstances lacks the keeping quality that is absolutely necessary for sufficient time in The time of removal of

which to cure it.
7. Salt is slightly antiseptic and this should be applied in quantities to guide but not intercept the slow fermentation that is commonly called breaking down. Salting in brine simplifies the curing process, but for very best results it should be applied only in small quantities at a the human stomach, they found that green cheese required 3½ hours to only about half digest, while cheese one year old took only about 70 minutes to fully but above all thin But, above all thin digest. A New York grocer advertised "old cheese for sale, it is rich and mellow, but not strong." He had a large from their confinement. If you take quantity of it and it was found as good them out on a cold day, their anxious as advertised, and that cheese counter desire to take a flight will induce them was surrounded all day with people patiently waiting to be served; few asked

for the price, they wanted some of that old cheese regardless of cost. There is a firm in Baltimore that made arrangements with a creamery to keep its cheese in cold at rage one year before it was delivered, and if the creamery can not do that the commission men put the cheese in Baltimore in cold storage, so that the cheese is at least a year old before it goes to the retail dealer.
A retail grocer states that it is only at A retail grocer states that it is only at certain times he could get any of this cheese from the commission men, and when he did so, people who never patronized his store at other times, would come just to get some of that cheese.—
From M. Schembri's address before the Minnesota State Dairyman's Association.

Farmers and the Heg Market. So much has been written and said on the feeding of hogs that we thought by this time every farmer in Ontario knew how to produce the standard bacon hog. A glance at our market reports from day to day, however, reveals the fact that large sums of money are being lost by farmers through the improper feeding, says The Toronto World. Last week in the Toronto Cattle Market animals of the right proportion and weight brought the right proportion and weight brought 87½ cents per hundred more than those which were too fat. A 200-pound hog, properly ied, brought \$1.75 more than one which did not come up to the requirements of the packers. A considerable percentage of all the hogs sold last week, well on to 50 per cent., were culls, bring ing 87½ cents per hundred less than they should have brought. In the aggregate this is a very big loss to the farming community. The drovers claim that the community. The drovers claim that the packing houses are too strict, if not actually unjust, in their rejection of so many of the hors that are offered for sale. There may be some truth in this contention, but it seems to us that a simple remedy is available to the farmer. Let him feed his hogs properly and market them when they are of the right weight and none of his animals will be rejected. There is no difficulty in feeding them and in producing the animals the packers insist on. We think, therefore, the farmers have, to a large extent, the the farmers have, to a large extent, the remedy in their own hands.

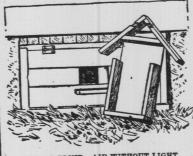
BEE LORE.

Points Worth Noting About Winter and Spring Care.

Mr. C. P. Dadant, the well known authority in beedom, has been giving a series of interesting articles in American Bee Journal from one of which, in legard to the care of bees for wintering,

not matter much where they are placed, 2. The milk should be drawn amid whether on the exact spot they occupied clean surroundings. The finest product before winter or in the place of one anable trouble from changing the location open air.

3. To give the cheese the best keeping quality, the milk should be made into curd, as fresh from the cows as possible, curd, as fresh from the cows as possible, their former location, after three months so that bacterial work may not be inter- their former location, after three months of wintering, so we take particular



CELLAR BLIND-AIR WITHOUT LIGHT. pains to mark each hive's stand. To do this without trouble, we leave the cap or cover with the roof over it in the exact spot occupied by the hive and remove only the brood chamber to the cellar. In this manner the hives occupy a much smaller space, and it is easier to give them good ventilation, which is absolutely necessary to keep the combs from molding, if the cellar is at all

We pile the hives in the cellar, two or three or even four tiers high, usually putting the lower tier on timbers raised a foot or so from the ground. We have always noticed that the colonies nearest the ground were the ones that suffered, if any did. After the hives are in, darkness, quiet-

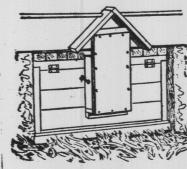
ness, a proper temperature and a sufficient amount of ventilation are all the vetch, having seven pairs of small leaflets. These are oblong, soft, hairy all over, one-half inch long or less, and sharply toothed on the margins. The flowers are borne singly in the axils of the leaves on short stalks about one-6. If the milk is contaminated with stances are at all unfavorable, for it is very easy to kill the bees with too much

To give air without light to our bee

The time of removal of the bees in the spring is of utmost importance to consider. If they are taken out too antagonizes bacterial work, it should therefore be withheld for the first two to fly much, and their power of endurance five days; this gives bacteria time to fly much, and their power of endurance become firmly established; after that it during a late cold seems to have been time. When cheese is properly made and cured it grows milder with age and becomes absolutely self-digesting. Professors

Arnold and Engelman of New York once undertook to determine the digestibility of cheese of different ages and stages; by the aid of pepsin from the pig's stomach, which, strange as it may seem, is nearest move the bees from the cellar was in March or April, at the opening of the first buds of soft maple bloom. This is

But, above all things, a warm day to venture when the temperature is too low for their safety, and many of them will perish. If the day is warm and



CELLAR BLIND IN PLACE pleasant, they will take a cleansing flight within a very few minutes after they have been brought out, and are thereafter ready for their habitual du-

I have often been asked whether it is advisable to take the bees out on a warm day during the winter for a good flight and put them back again. I have never tried this, but from all that I ever heard I do not believe such a course is successful. The bees after their flight begin to rear some brood and remain less quiet than if they had been kept indoors all winter.

American Versus English Statistics. In reply to Sir William Crookes' statement that practically no uncultivated prairie land remains in the United 960,000,000 bushels.

THE CHINCH BUG.

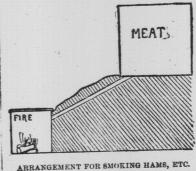
THE CHINCH BUG.

All About This Devastating Inseed and the Means to Overcome R.

The chinch bug is one of the most destructive insects with which the American farmer has to contend. In come quence of constant requests for information about it the department of a grandition about it the department of the insects, its problem of the chind bug it may be destroyed in the figure of the chind bug it may be stated that the insects may be destroyed in their places of hibernation by the use of the figuration, be destroyed in their places of hibernation by the use of the figurations, be destroyed in their places of hibernation by the use of the figure of the chind bug it may be stated that the insects may be destroyed in their places of hibernation by the use of the figurating from one field to another by tarred barriers or deep furrows supplemented by post holes and by being but the or design season by the use of the fingus Sporotrichium globuliferum if promptly and carefully applied. They can be destroyed while in the act of migrating from one field to another by tarred barriers or deep furrows supplemented by post holes and by being but the or destroyed will be used to the fingus Sporotrichium globuliferum if promptly and carefully applied. They can be destroyed with the theory of the control of the chind the surface of the ground with the plow and harrow, or the latter method can be applied after the bugs have been massed upon plots of some kind of vegetation for which the bugs are known to have a special fondness, which decoys should be so arranged as to either a tirract the females and induce the surface of the ground with the plow and harrow, or the latter method can be applied after the bugs have been massed upon plots of some kind of veg be arranged with the idea of intercepting an invasion from wheatfields into cornfields, and by turning these decoys under with a plow and immediately under with a plow and immediately smoothing and packing the surface by harrow and roller, thus destroying them. While in the cornfields they can be destroyed on the plants by applications of kerosene emulsion. Without vigilance and prompt action, however, only indifferent results are to be expected from any of these measures.

In regard to hibernation Professor Webster says: The chinch bug hibernates in the adult stage, and though there may be occasional exceptions, especially in the south, it has yet to be observed in very early spring in any other than the adult stage, at least in any locality north of Mexico. I have observed pupæ in central Illinois apparently in hibernation in company with adults on Nov. 11, but there is no proof that these survived the winter. In Tensas parish, La., adults were abroad in considerable numbers during abroad in considerable numbers during March, 1887, yet there was no indication of any young having wintered over.

When There Is No Smokehouse Select a convenient place on a hillside or where a lot of dirt has been thrown out of an old well. Get some iron or an old stove and place it at the base of the hill, as indicated in the ilbase of the hill, as indicated in the il-



lustration, and make a lead of tile to the upper part of the hill, where an organ box or a goods box is placed, in which hang the meat. There will be just enough heat to cure the meat well, and the smoking can be done perfectly by this method, says an Iowa Homestead correspondent.

Foreign Wheat Crops. According to the crop circular for November, changes reported in the estimates of foreign crops would increase the total estimate of the world's wheat crop, but the conditions affecting the crops of the southern hemisphere are scarcely so favorable as they were commonly supposed to be earlier in the season.

The London Times estimates the wheat crop of the United Kingdom at 9,440,000 quarters, or 77,900,000 Winchester bushels.

It seems likely that the total of wheat for Canada will reach the highest of the three estimates already madenamely, that of Broomhall, which was 68,000,000 imperial bushels.

Fall sowing was delayed by drought throughout a large part of Europe, but there is no reason to apprehend any material detriment to the crop from the delay, though in some countries the area sown may be somewhat smaller than it would have been under more favorable circumstances.

Does It Pay to Keep Your Cow? During the summer of 1898 the Kansas Agricultural college dairy made an investigation of the patrons of the Meriden creamery to ascertain the income they were realizing per cow for milk sold to the creamery. The poorest herd averaged per cow \$7.54 annually and the best one \$42.09, making a difference of \$34.55 per cow. Taking the poorest five herds the average per cow is \$9.44 and for the best five \$33.74, a difference of \$24.30, or 257 per cent. Where records have been kept it has been found that

POULTRY DEPARTMENT.

ma. y eggs this winter. Hens living in crowded, treezing quarters and in filth have not done any better.

In there days of cheap and excellent poultry papers, it is surprising that more common sense (though common decency would be a better term to apply), is not used more in the hen house.

The motto "cleanliness is next to Godliness," should adorn all quarters in which the hen resides, and be carried out to the letter.

On the cold winter nights while you enjoyed the comforts of a warm house, were your hens freezing on their perches?

It is as well to think over all these matters now, so as to prepare a remedy

er, and you have not an incupator, the chances are that you wont have the chickens as ear y as you would like. Because the broody hen must first be a ald like. layer.
It is not alone in St. John that the de-

It is not alone in St. John that the demand exists for early chickens, but in every town and village in the provinces. Ask the hotel keepers in the section in which you live, whether they get what they want in this line, and what chickens or fowlayou sell aim to have them prepared in the most tempting manner. Chickens intended for the market are not gaining flesh fast, by running their legs off over flesh fast, by running their legs off over the filds. Separate them from the others by cooping up, and don't try and sell one chicken and one old hen for a pair of chicken. Any sort of deception if discovered) will hurt future sales. Ducks are a profitable bird to raise Of the varieties the Pekin is the best, for it matures quickest. Do not consider it

necessary to possess a pond—all they want in this respect is plenty of water to drink. Feed the ducklings well and at from eight to ten weeks, that is before their pinfeathers start, they should weigh as many pounds and in the St John market sell in the yignity of one dollar per pair. vicinity of one dollar per pair. Turkeys are the only birds sold in this market by the pound Is it not nonsense that all poultry is not placed on the same level in this respect?

SAD ACCIDENT.

Fatal Results Attend a Mishap on Saturday.

Mr. Michael McKinley, a man well along in years, and a much respected citizen, died at the hospital Saturday evening as the result of injuries received that atternoon. He was a laborer and was busy in the hold of the steamship Chan at Robertson's where was busy in the hold of the steamship Chban at Robertson's wharf. Coal was being discharged in tubs from the steamer. As one tub went slott some coal tell from it and struck the unfortunate man with great force.

He was rendered unconscious and it was feared he was badly injured. The ambulance was summoned and he was

was feared he was badly injured. The ambulance was summoned and he was removed to the h spital, where he lingered unconscious till about 6 o'clock, when he passed away.

Deceased was about 60 years of age, and was a native of Hampton, Queens county. He had been a long resident in the city and had gained the respect of all with whom he came in contact. He was a widower, and leaves two sonr. Two sisters also survive and for all there will be general vive, and for all there will be genera sympathy because of his sudden desth.

The remains were conveyed from the hospital to 94 Q seen street, the late residence of deceased, permission having been given by Coroner Berryman who had been notified, and who will hold an inquest.

Of the people are afflicted with some form of humor, and this causes a variety of diseases. humor, and this causes a variety of diseases. The reason why Hood's Sarsaparilla cures when all others fail is found in the fact that it effectually expels the humor. Scrofula, saltrheum, boils and all eruptions are permanently cured by this great medicine.

Hood's Pills are the best family cathartic

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Book of CARDS

*ARDS###

BILL AGAINST BRIBING.

By J. P. Whitney.

TORONTO, Feb 22-J P Whitney, the opposition leader in the Ontario legislature, introduced an important amend ment to the election law, providing a man found guilty of bribing electors any election shall be sentenced to six months in jail with hard labor.

Self support is the corner-stone of society. Plant your foot firmly on that first round of the ladder of life and everything will be forgiven you.