

Consult with your help.

Nearly every one can grow phlox.

Good, clean runs are a delight to

at a high price.

Are you troubled with crows about your chicken yards?

Feed very little soft feed and you will raise more chicks,

Clover can be grown more cheaply than timothy or fodder corn.

Bran and meat meal help to supply the young sows with muscle and bone,

By putting a little fine hay in the call's mouth daily she will soon learn

Paraley is next to lettuce in winter marketing-both profitable-when well

One of the most important problems of the farmer is to feed his animals economically.

Borrowing tools, and sending them ne dull or rusty, doesn't make the other fellow grin.

Young as well as old orchards should be plowed in the fall, and thoroughly harrowed in the spring.

Celery seed should be sown in a shallow drill and covered with just a light sprinkling of fine earth.

Don't cultivate the potatoes when out in bloom, or coming out, unless you want a lot of stunted little tubers.

If there are signs of worms in your hogs, feed concentrated lye, one-half conful to each animal well mixed tu slop or soft feed.

If sweet butter is to be made which will command the highest market price, cleanliness must begin in the stable where the milking is done,

Go over the young apple trees and

The proper time to set out fruit and deciduous trees is the latter part March or first part of April, in the

It is estimated that Colorado farmers last year received \$7,500,000 for their augar beet crop, an increase of \$1,000,000 over the product of the previous year.

In the opinion of many eastern feeders, best development of livestock cannot be had without the use of feed during winter.

String a stout wire overhead in the safe handled this way.

In setting one fruit tree, or many, the ground should be deeply plowed. thoroughly harrowed and the rows for the trees run out with the twohorse plow. Run the plow twice in

A awe without milk makes a poor mother. Feed if necessary to get the his food by putting finely cut hay with milk flow, and you'll find the invest- the grain. A ration of half prairiement a good one. Roots of any kind, grass hay and half alfalfa will give atfalfa hay, or a small grain feed will work wonders.

A stout wire netting fence fastened to stout posts set two and one-half feet deep in the ground and eight feet apart makes the best hog fence; have he is quite certain that they thrive hoard at bottom and one at top to better and lay more eggs than they keep the wire tight.

Might as well give the trees plenty of room at the start because if you don't they will have to be cut out later. Thirty feet apart is the right the yield of dry matter being little distance for apple trees, although 40 more, it seems poor farm practice to feet would not do any harm.

The future of the dairy business depends upon the quality of our prodnots. It is a sad commentary on the datry business, when we hear dealers and consumers argue that cleo is better than one-half of the butter, that finds its way to the market.

When the mother's milk cannot be used for her calf, try to get the milk hogs of the highest quality are to be from a cow with a calf as old as the grown and a uniformly profitable herd cae you are feeding on the bottle, as built up. Only pure-bred boars should the milk of a cow in the seventh or be kept and these should be carefully eighth month of her period of lacta selected to maure prepotency, quality an is had for a very young celf.

There is nothing like leather.

Plant tomatoes four feet apart each

Don't forget to spray the grape The Honier pigeon is the best bird

for squab raining. Sometimes litter gets so fifthy that it is worse than none.

Leave it to the old hen to pick out the best nest to lay in.

To Improve live stock requires inelligence and thought.

Among all dwarf-growing trees the apanese maples stand first.

If possible grow potatoes on clover

god; this saves buying fertilizers. Oats is the standard grain for the healthy development of young ani-

mata.

In the fatiening pen give the pigs A good cow is seldom sold, except all they will readily clean up but no

> Many farmers use a boar of different breed of that of their sows to produce a cross.

> Sound, healthy cows can only be had by good stabling, careful feeding and good water.

> When the chicks can get away from it at will, plenty of heat under the hover is a good thing.

After the calf has learned to drink, a little fine hay should be tied up in the pen for the calf to nibble.

Almost all flower seeds germinate more quickly if soaked in warm water for a few hours before planting.

Do not plant trees with a bunch of spreading roots. Trim them off to within four or five inches of the root

Don't forget to give the little ducks plenty of drinking water, and after one week old they want it to swim

Horses that are ellpped dry off fast at night. This is better than having them stand around in a heavy

A once lively faith in the existence and possibilities of strains of hens which would produce 300 eggs a year has decayed.

At the end of five to eight days remove the calf to a roomy, clean box stall and give a clean dry bed of wheat or oat straw.

The feeding and management of the young calves should be in the hands of a competent hand and not left to the boys or careless help.

Many a man has been surprised at cut off every water aprout with a the effect of one load of barnyard masharp knife close to the trunk. Do nure scattered about under a tree. It early and they will heal this season. It gives new life and fruitfulness,

The only way to make a profit with poultry is to attend closely to busiof October and the latter part of ness and not leave the feeding and management of the flock to hired

> Extreme care must be taken of the tiny seedlings, for if allowed to get dry they will almost surely die and if kept too moist they incline to "damp off."

The great secret in successful root ulture is clean, mellow deep soil, liberal fertilizing, early sowing and roots or allage to supply succulent early culture as soon as the plants can be distinctly seen.

A light sandy soil will be rather cow harn and hang the lantern to this benefited by working it when moist, while milking and feeding. It can be as such will have a tendency to make alld along from place to place and is it more compact and consequently more retentive of moisture.

> Rhubarb is of easy cultivation, and when once planted, the ground kept clean, mellow and heavily manured, will furnish a generous supply of juley stalks for eight to ten years without

The horse can be made to masticate almost as good gains as a ration of alfalfa alone.

A Virginia man writes that for years he has sown a small patch of buckwheat for his heas and he says did without this grain.

Since the cost of growing an acre of roots is two or three times as great as that of growing an acre of corn. abandon the allage in favor of roots.

Poor soll management means in the end complete or partial soil exhaustion, which is a condition of the soil in which it is deficient in humus content, or food content, or moisture content, or all three, and they usually go

Good sires are very essential if and soundness.

### IMMENSE DAMAGE WROUGHT BY COMMON POCKET GOPHER

Little Enemies of Fruit Grower and Forester in Some Localitles Make Profits From Orcharding Exceedingly Uncertain-Since They Work Underground Injury Is Concealed, Preventing Protective Measures.

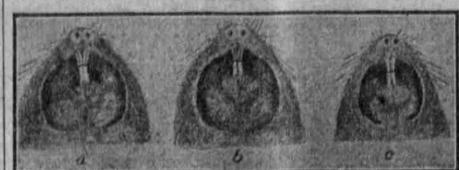


Fig. 1-Faces of Pocket Gophers, Showing Pouches and Incisors. (A. Geomys; B. Cratogeomys; C. Thomomys.)

Three groups of North American mammals are generally recognized as enemies of the fruit grower and forester. These are pocket gophers, rabbits, and short-tailed field mice. Each of these does enormous damage, often amounting to thousands of dollars upon a single plantation. In some localities they make the profits from orcharding exceedingly uncertain. Of the three, pocket gophers inflict losses fully as great as those caused by either rabbits or field mice; and since they work underground, the injury is concealed, often until it is too late for protective measures.

Pocket gophers, locally known also as pouched rats, salamanders, tuzas, or merely gophers, inhabit more than half the entire territory of the United States outside of Alaska and the island possessions. They occur through moving. Their burrows admit surout the greater part of almost every | face water and on sloping ground lead

By DAVID E. LANTZ, Assistant Bi-ological Survey, United States Depart-ment of Agriculture.) tinct grooves are present, a fine sharp one along the inner margin of the tooth and a larger one near the middle (Fig. 1.a). In Cratogeomys, a group with somewhat limited range on the plains from middle Colorado southward into Mexico, a single median furrow is present (Fig. 1, b). In the largest group, Thomomys, inhabit ing the western half of the United States and adjacent parts of Canada from the great plains to the Pacific ocean, the upper incisor is either unforrowed or has a fine groove in the margin (Fig. 1, C).

The number of species of pocket gophers is upward of 100 and all have similar food habits and are exceedingly destructive to plant life.

Pocket gophers do harm in many ways. They eat hay and pasture and cover grass with earth. They cause heavy loss of hay by preventing close



Fig. 2-Root of Apple Tree Gnawed by Pocket Gopher. Root Knots Promi-

state west of the Mississippi, and east | to the washing of deep gullies. Their of that river in the greater part of tunnels in dams and levees cause Illinois, southern Wisconsin, and large areas in Florida, Georgia, and Ala- dens and injuire many field crops. bama. Outside the United States they inhabit northwest Canada northward to Winnipeg and most of the Saskatchewan Valley.

Nine genera of this family of rodents are recognized, but only three States. These three may be readily distinguished from one another by the grooving of the upper front teeth. In Geomys, the group occuying the Mississippi Valley and parts of the southeastern United States, two dis-

many costly breaks. They ruin gar-Besides all this, and probably as important, is the damage they do to fruit and other trees.

While the pocket gopher no doubt exercises choice in its diet, it injures nearly all common kinds of fruit trees. of them occur within the United It is said that on some parts of the Pacific slope gophers do not injure the peach, but probably this is because better-liked trees are available. It is certain that the gopher of the Mississippi Valley often damages the peach severely.

#### **BREAKING UP BROODY HENS**

Better to Allow Her to Stay on Nest for Two or Three Days and Confine Her in Atry Coop or Peu.

(By W. F. PURDUE.) Confining broody bens in a tight roop without food or water for several days, as practiced by some, will, no doubt, break them, but when they are released from their prison the hens are nearer dead than alive and to lay again for several months. modiately.

When a hen first becomes broody it is better to let her sit for a few days, giving the hest a rest and allowing her system to recuperate and then break her un-

After remaining on the nest two of three days the hen may then be confined in an airy coop or pen, large enough to admit of exercise but free the check pen of equal parts of from anything of which she could wheat and whole corn, and in the othmake a nest.

Feed her lightly and give her plenty of water. Another good fall for the broady hen is a small coop with a slat bottom through which the air can cir-

culate. A sitting hen must feel the sensation of warmth under her body when she to on the nest else she will soon give up the work

sible to import warmth to anything and the broody fever will soon abate. Wherever the hen is confined, however, don't withheld food or water and when released she will be ready to commence laying again in a short

few inches from the ground the hen

will soon discover that it is impos-

If it is not the intention to set them it don't pay to let the broody hens remain on the nests without attempting to break them up.

If allowed to occupy the nests as long as they are disposed they will often sit for weeks and may not start

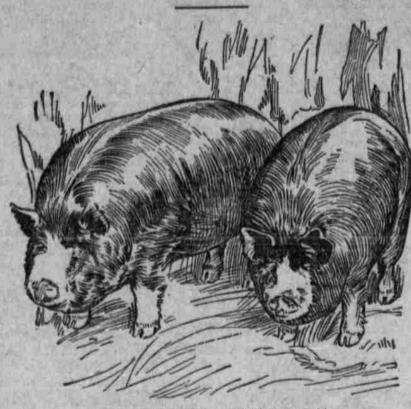
Say Beans and Cow Peas for Hens. A most interesting investigation recently conducted by the bureau of animal industry has had for its object the determination of the palatability of noy beans and cow peas as a feed for laying hous. Three pens were used, each receiving in addition to their mash a grain feed composed in er pens cow peas and soy beans in place of the wheat. After a few days both the cow peas and the soy beans were eaten readily and apparently reliahed. The hens seemed to do quite as well on the cow peas or the soy beans as on the ration containing

Training Colts.

The way two colts are trained may When confined in a coop such as make a difference of a hundred dol mentioned and the coop is raised a lars in the prices of them.

# MANY EXCELLENT QUALITIES FOUND IN BERKSHIRE BREED

Highly Recommended on Account of Good Disposition and Because They are Nice Lookers and First Class Feeders-Sows are Better Mothers Than Average, Give Much Milk and Raise Large, Even Litters,



A Pair of Prize Winning Berkshires.

have a good disposition, are good look- of exercise during the entire year. ers and first-class feeders. The sows My plan has always given good sucare good mothers, good milkers and cess. raise large, even litters of pigs. They are better hustlers than some other breeds and can be fattened almost at any age. There is always a demand for them on the eastern market and they seem to me to be one of the best bacon hogs. I also prefer the Berkshire breed because they seem to be more healthy, writes H. C. Cole- dap!" or GI up!" or whatever it is man of Turner county, South Dakota, in the Orange Judd Farmer.

I raise all the little fellows I can which are farrowed during March, April and May. I leave them with their mother until they are about ten weeks old. By that time they should be strong enough to take care of themselves and will eat practically horses, they will not start ahead any kind of feed I give them. During August I select the very best gilts for breeding, also the best boars for trade and ship nothing but the best. My sales are generally by mail.

The brood sows are fed three times a day. In the morning I give them a times a little swill is given them dur- ing \$100 work of stock on a farm.

I like Berkshire hogs because they | ing the day. Brood sows need plenty

Novel Team of Horses.

Chicago boasts of a team of horses, four big truckers, that do things that seem almost uncanny. To the command "Whoa!" they put more pressure on the collars and more speed in their legs, and to the order "Gidthat the average teamster uses to hurry along his steeds, they respond by stopping abort. "It's just an idea of my own," says the driver of these odd beasts. "It is really an advantage to have horses that act contrary to what people expect. If they are backed up to a crub beside other when another driver yell 'Get up!' at his horses."

Market for Live Toads.

English and French gardeners are always in the market for live toads, and not unfrequently as much as \$25 little ear corn, at noon some oats and per hundred is paid for this insect in the evening more corn. They have destroyer. It is estimated that every all the fresh water they want. Some- time a boy kills a toad he is destroy-

# DISEASES OF

Blackleg / Apparently Becoming Widely Distributed Throughout Some Parts of United States-Causes Decay.

Blackleg, a bacterial disease of the stem and tuber of the potato, is apparently becoming widely distributed throughout some parts of the United States. In most states it is not common enough to attract attention, and in no region has it done much dam- the disease occurs should be kept in age, although it may become a serious grass, clover, or cereals for as long pest in some sections.

to potatoes again. The attacked plants are usually unthrifty, light green or even yellow, and undersized. The branches and leaves have a tendency to grow upward, forming a rather compact top, often with the young leaves curled and folded up along the mid-rib.

The most characteristic thing about them is the inky-black discoloration of the stem, at or below the surface of the ground, but frequently running up the stem from one to several inches above ground. The seed-piece from which the attacked plants spring is invariably attacked with a soft-rot, and the disease appears to start on the stem at its junction with the disdisease are capable of causing a rapid decay of the young tubers, and these are sometimes attacked also.

The evidence thus far obtained indicates that blackleg is largely distributed by means of germs carried in wounds, cracks and decayed areas of seed tubers. On account of the readiness with which the organisms are killed by drying there is little to fear from sound, smooth seed stock, lands, India, estimate the next crop

infecting solution as a matter of pre-

caution. IRISH POTATO The propogation and spread of the disease probably can be controlled largely by the selection of seed from fields free from the disease, the rejection of all seed tubers which have wounds, cracks or decayed areas and treating the remainder with corresive sublimate or formaldehyde solutions or with formaldehyde gas as is done for potato scab. It is not known whether or not the disease germs will remain alive in the soil to infect future crops of potatoes, but as a precautionary measure the land on which

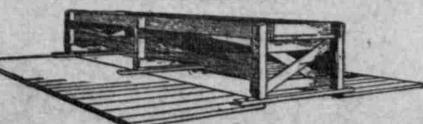
Army Horses.

a time as possible before planting it

Capt. Archibald S. Black of London, a former army officer, who is visiting in this country for pleasure, was seen at a local hotel, says the Washington Herald, and in speaking about army horses, he said: "The British army on mobilization will require 132,000 horses, and no one has the slightest idea where they are to be found. Good authorities tell us that this number of animals of the military age does exist in the country. With the growth of mechanical transport the necessity of taking steps to secure a supply of eased seed tuber. The germs of the horses in war grows more and more urgent. We cannot, unfortunately. mount our cavalry on taxicabs. We still breed the best horses in the world, but they are bought up for the use of foreign armies while the Britlah war office is counting its pence."

Crop of Java Coffee, The governor general of Netherbut this should be treated with a dis- of Java coffee at 4,133,000 pounds.

## **BUNK FOR FATTENING CATTLE**



In a bulletin published some time | these being placed so that the 16 feet long and 6 feet wide, two of are substantial planks.

ago by the United States department bunk rests on the inner edge of both. of agriculture, some information was The feed bunks themselves are 2 feet given on the subject of handling fat- 6 inches high, 3 feet wide and 16 tening cattle in a dry feed lot. Among feet long. These are outside measurethe details discussed was that relat- ments. The uprights are 4x4 inches, ing to the feed bunk which is shown while the rest of the material in in the accompanying illustration. This the bunk is 2-inch plank. Even the bunk is placed on a plank platform cross pieces that are used for braces