Weight First Year of His Life-Ration From Wisconsin.

that a draft foal makes one-half his

mature weight the first year of his

life. The foal must be fed, not starved,

if he is to develop into a good draft

horse. The foal fed an improper and

unpalatable ration the first winter

usually has a big middle and two very

poorly developed ends. Considerable attention has been

given to feeding draft foals at the

University of Wisconsin the last few

years. At one year of age they have

weighed from 1,000 to 1,200 pounds.

These foals were all accustomed to a

small amount of grain before five months of age when they were weaned.

After weaning they were given the

following ration until turned on grass

Ration for 100 pounds mixed feed:

65 pounds crushed oats, 15 pounds

corn meal, 10 pounds bran, 15 pounds

They were fed all of this mixture

they would eat three times a day

and were given no hay other than that

in the mixture until they were about

one year old. The amount of this

mixture eaten per foal per day varied

from 9 to 15 pounds (20 to 30 quarta)

Fine Type of Draft Stallion.

according to age. Much of the time

the feed was dampened and thoroughly

mixed before feeding. The advantages

of the damp mixture seemed to be the

variety of wholesome feed and the

relish with which it was slowly and

Where one cannot feed so varied a

mixture as that described, a ration of

20 per cent bran, cut alfalfa or cut

fed as described will prove very effec-

tive. Foals do not appear to be able

to make as good use of whole oats and

hay as an older horse. When fed those feeds separately and whole they

eat less feed and have a greater ten-

It is a practice of some successful

Wisconsin breeders to feed liberally

bran and crushed oats for grain three

times per day and hay and sorghum

stalks each once per day for roughage.

Combinations such as marsh hav and

corn should be avoided. Although corn

silage can be fed to idle horses it

should only be given in a very limited

One cannot economize by limited

feeding of the foal. What one saves

in feed the first year he sacrifices

from five to ten times in the final

draft foals are capable of making 1,000

pounds at one year and developing

into a good draft horse. It generally

does not pay to practice liberal feed

ing with mongrel or scrub animals

for there is but little margin between

the final value of the animal and the

nomical Plan-Alfalfa Furnishes

Excellent Grazing for Pigs.

the feed lot alone, but not for the pur-

Every hog grower should make a

ning at large about the farm buildings.

With modern woven wire fence, it is

easy to confine them within their

There is nothing gained by mixing

The longer any herd or family of

hogs is subjected to a ration of corn

or confined to small pens and barren

Pasture for "Hogging-Down."

that two acres of 40-bushel corn will

feed 55 to 65 shoats about 15 days.

Flockmaster Must Be Vigilant.

The flockmaster, or owner, must be

ever vigilant. He should know his

flock so well that the very slightest

indisposition will be detected at once

yards the lower will be their vitality

forn meal with chopped alfalfa, except

to insure larger consumption.

and prolificacy.

in and noting results.

pose of perpetuating their kind.

clover with 80 per cent crushed oats

thoroughly chewed.

dency to "pot belly."

way or not at all to foals.

cost of feed consumed.

naceous foods.

at about thirteen months of age.

finely out alfalfa or clover.



Fine Type for Plowing.

be possible for the farmer in the cen-

tral and southern parts of the South

hogs throughout the entire year. From the following list a selection should be

almost any farm.

January and February—Wheat, oats

March-Oats and vetch, artichokes,

April-Oats and vetch, rape, bur

May-Oats and vetch, rape, red clov-er, alfalfa, crimson clover.

June and July-Sorghum, cowpeas,

August - Sorghum, cowpens, soy

September and October Sorghum, cowpeas, soy beans, chufas, sweet po-

November-Cowpeas, soy beans, chu-

fas, sweet potatoes, corn, rape, pea-

December—Cowpeas, chufas, sweet potatoes, corn, rage, velvet beans.

Through the use of such pasture

crops as these pork can be made more

cheaply in the South than in the corn

belt. It costs, it has been calculated,

from one-third to one-half less to raise

hogs when pastures are used than with

concentrated feeds alone. Moreover

the hogs harvest the crops without danger of loss from rain and without

expense, and finally both the soil and

the hogs gain. The soil is enriched by

the legumes and the health of the hogs

WHEAT BRAN IS EXPENSIVE

Southern Farmers Can Increase Profits

by Growing Every Possible Pound

of Feed for Stock.

There is no doubt that wheat bran

is one of the best feeds that can be

used to produce a large flow of milk.

yet, it is about the most expensive

feed the dairyman can use. One pound

of cottonseed meal has a feeding value

equal to one and one-half of wheat

bran, but of course it will not do to

Cowpea hay has value almost equal

to that of bran, the exact ratio being

1,800 pounds of bran to 2,000 pounds

Many feeders believe that alfalfa is

fully equal to that of bran, pound for

pound, and if the bran has to be

of alfalfa is certainly greater, because

the growing of alfalfa or any other

good crop always improves the land.

while feed brought in from the outside

only adds its manurial value to the

Farmers in the South can Bardly af-

ford to buy bran; being so far from

the big markets the price is generally

high-from twenty-five to thirty dol-

lars per ton. In any other country

feed high, effort should by made to

grow every pound of feed possible up-

Southern farmers are teginning to

appreciate the value of this practice,

and more stock feed is being grown in

While it is a gratifying fact, also,

that more livestock is being raised in

the South, there is no doubt that the

amount of stock food per head grown

Cottonseed meal is a favorite feed

for the cows in the South and a good many farmers feed too much of it. If

they would grow more cowpeas, hairy

vetch, clover and alfalfa, and buy less

prepared feeds, their profits would be

larger and their soil greatly improved.

COTTONSEED MEAL FOR COWS

It is Very Rich in Protein and Animals

Easily Get Too Much of It-

Makes Butter White.

Dairyman in some localities have

and have found it good feed. It should

be used with care and not too much

fed at a dime, for it is very rich in

protein and cows easily get too much

a bad effect on color in butter, making it mich whiter than where corn

by our calrymen is at an end for now

have from fifteen to thirty acres

much use of cottonseed meal,

It is also thought that it has

on southern farms is steadily increase

that country than ever be ore

on the land itself.

ing.

the soil is poor and commercial

bought in the open market the value

replace the meal with bran.

rape, bur clover, crimson clover.

clover, alfalfa, crimson clover.

velvet beans

red clover, alfalfa.

tatoes, corn, peanuts.

beans, alfalfa.

improved.

of hav

(Prepared by the United States Departing the farmer to study this question thorment of Agriculture.)

The southern farmer who appreciates the advantages of raising himself much of what his family needs, is certain to be confronted at the outset to have fresh pastures for cattle and by the problem of pastures. It is almost impossible to realize a profit upon any kind of stock without good pastures and even if the stock is raised primarily for home consumption rathr than for market, the first thing to be done is to establish one.

Hitherto the South has been sadly deficient in this resect because all the attention has been given almost en-tirely to cotton. The southern farm-er, however, can, if he will, have as good a pasture as was ever seen in Kentucky or Missouri; and have it available more months in the year than is possible in those states. For a permanent pasture a combination of bur clover and lespedeza and Bermuda grass will afford good grazing for at least ten months out of the twelve, for the Bermuda and lespedeza can be grased throughout the summer and the bur clover from January until the Bermuda comes on again. On light, sandy soils near the gulf coast carpet grass may do better than Bermuda. In any case, however, every permanent pas ture should have a good proportion of some leguine either one of those already named or melilotus, vetch, white clover or alsike clover.

No matter what combination is se lected it takes time and work to pro-



There is Money in Mules.

duce a really good pasture. In fact such a one requires as good soil, as much work in its preparation and as careful handling as any field on the After the ground has been plowed or disked and the seed sown no grazing should be allowed until the young plants become so firmly rooted that they will not be pulled out by the grazing animals. When seeding is done in the fall the field should not be grazed until the growth is well started, and no permanent pasture should ever be grazed so heavily as to injure the stand.

After the pasture has been made, there are two weeds which sometimes make trouble, the bitterweed and the garlic or wild onlin. The presence of bitterweed is an indication that the pasture has been grazed too closely or has been trampled so heavily that the surface soil is too hard and compact for grasses and clovers to grow. The weed is seldom troublesome on a rich soil in good condition and rarely so on a poor soil which is not too closely grazed. The use of fertilizers or decreasing the number of grazing animals will aid in eradicating it. The destruction of the wild onion is

more difficult matter. It can be killed by a deep plowing of the ground ber or October, followed by a very shallow plowing in the spring and then planting the field with some cultivated crop. However, this meth-od cannot be followed in an ordinary pasture where there are many trees or in any pasture without destroying the grass and so making the field useless as a pasture for about eighteen months. When a pasture is not infested it should be watched closely and any wild onions which make their ap

pearance removed at once. The permanent pasture should be supplemented by temporary ones, for which many crops are suitable. winter use the small grains and vetches will do for horses and cattle, artichokes, chufas, sweet potatoes and cassava for hogs. From December to April oats or wheat and vetch make the best grazing for dairy cows. Horses and mules do not care so much for the etch but they will eat the grain until the permanent pasture is ready for them. One bushel of turf oats or wheat and one peck of vetch seed are suff cient for an acre. If the rustproof oat is fed. But the buying of cottonseed is used, the amount should be increased about one-half. Oats, however, play such an important part in sound of alfalfa, most of which has bee southern agriculture that it will pay sown within the last two years.

When Silo is invaluable.

not worth much for pasture, the silo

fed profitably in the winter time, but

it can be fed in the summer time-especially like 1914, when many farm-

Avold Drafts.

Keep all drafts off your horses.

draft is pneumonia's friend.

When the grass dies down and is

invaluable. Not only can silage be

Droppings Make Pich Soll. Poultry droppings make rich ground many a poultry keeper has made his garden plot too rich with this form of ertilizer and been forced to haul a poor grade of earth to mix with the garden soll and bring it away from its verfertility.

ers were compelled to sell live stock at a sacrifice on account of lack of Cow Not Understood. Few town people realize the impor-tance of the dairy cow from the stand-point of human life and business econLIVE-STOCK-FRUIT-DAIRYING-BARDENING-FIELD CROPS-SILOS-PIGS

New Wrinkles In. Progressive

Making the Farmers' Business Profitable

TOLD IN AN INTERESTING MAKNER EXPRESSLY FOR OUR READERS

#### WINTER WORK IN ORCHARDS FEED FOR THE DRAFT FOALS Youngster Makes One-Half His Mature

n Ground to Frozen is Favorable Time for Hauling and Spreading Manure—Add Bone Meal.

The winter when the ground is rozen hard is a favorable season for hauling out with cart or sled the manure needed. In spring the ground is too soft to haul over and other work is too pressing; the result is this important matter is put off for another year. The manure should be hauled and spread evenly over the ground. Do not place directly around the trunks; it only affords a harbor for mice and insects. The manure should be rotted and from grain-fed With a little forethought it should cattle or horses. Straw and cornstalks, mixed with a little animal me nure, is poor stuff and is only valuable as a mulch. This kind of manure ut the entire year. From should be hauled out to the orchard and piled. Mix a half-bushel of raw possible which will meet conditions on bone meal in each two-horse wagon load of manure as it is piled and make a compact heap, which will soon rot and vetch, artichokes, rape, bur clover, down, and, when well rotted, should be spread. About one to two bushels is the proper quantity for each targe tree. The manure should be spread in a circle as far out as the branches extend.

Practical growers are now using from 400 to 800 pounds of animal bone and potash fertilizer per acre. The fertilizer is drilled in with rye in tha early fall, the rye is turned under in April-for green manure. This nets-od is found to be the cheapest and best method of fertilizing the orchard.

#### SPRAY FOR SAN JOSE SCALE

Best Remedy for Pest Is Thorough Treatment With Lime-Sulphur Mixture Late in Winter.

(By C. P. GILLETTE, Colorado Experi-San Jose scale is one of the worst pests attacking orchard trees in this country. It is extremely important that orchards should be so treated as to exterminate the scale from them and prevent its spread to surrounding orchards.

Undoubtedly the best remedy for this scale is a thorough treatment with lime-sulphur mixture late in the winter or early in the spring, before the buds begin to open on the trees. If the commercial concentrated lime sulphur mixtures are used they may be diluted in the proportion of about one part of the concentrated prepara tion to ten parts of water. If homemade lime-sulphur sprays are used, probably there is no better formula than the following:

Good lump lime, 15 pounds; Flowers of sulphur, 15 pounds; Water, 50 gallons.

The lime should be slaked in warm water and, as soon as the slaking has been well started, the sulphur should be added and enough water kept in the receptacle to keep the mass thin and sloppy. Boil for at least forty-



Preparing Mixture for San Jose Scale five minutes, or until the liquid is a deep brick red in color; then dilute to fifty gallons and apply at once.

Protect Grapes From Mildew, protect grapes from milder which may or may not attack them they should be dusted or sprayed with sulphur. For a few vines or family vineyard a good way is to put grain bag and shake the sulphur over the vines. A sprayer which will force the sulphur among the leaves more completely is of course more

effective. Fruit for Home Use. pruning fruit trees for home use let there be no varieties of inferior quality selected. There is nothing too good for the home use. It is a pleasure to hunt out these good, things and to take an interest in getting them started in the home garden and orchard.

Applying Manure. When we apply manure to the grass land we get the lever under the very center of gravity of the whole farm When the grass crop co whole farm comes up with it.

Spread of Cholera Germs. Keep a loaded gun for pigeons, rate and Unglish sparrows that carry

Scarce Hen. The 200-egg per year hen is almost as scarce as the hen with teeth.

# CAUSES OF MANY FAILURES IN POULTRY



A Badly Mixed, But Busy Family.

G. Halpin, poultry man at the Wisconsin Collège of Agriculture, to one or more of the fallowing reasons:

buildings. Flocks do not require costly equipment, and of course the poul- perienced, try man must pay interest on his investment.

2. Lack of experience and failure to raise chicks properly. Many a man has jumped into the poultry business with ittle or no experience, and naturally has lost money in his plunging.

3. Failure to market right. To produce a superior product is not enough. It must be advantageously marketed. 4. Starting with poor stock. It costs

little or no more to start with profitproducing stock than it does with in-5. Neglect in improving breeding stock. By carefully selecting the hens and mating them with well choeen

males more improvement will be se 6. Neglect in cleaning. Filth is certain cause of loss to the poultry

7. Neglect in fighting lice and mites. se pests are a source of heavy loss to all who do not fight them.

8. Poor management. Like every other business, poultry raising requires close attention to details. Should Go Slow.

The more common cause of failure is too heavy investment. Many farmers start with expensive buildings as soon as they get the "hen fever." They run into debt, become discourage after a few mistakes, and quit the business. It is wiser to patch up the old poultry house and make improvements gradually as your profits war-rant the expenditure. All amateur poultry man should go slow and build up his flock from huntble beginnings.

The next most common cause of fails ing chicks. He should serve an apprenticeship on some poultry farm, or stock of it with him.

Every failure in the poultry busi- | if he can, and before he starts out for ness can be traced, according to James himself, he should take a course at some recognized poultry school. After he has learned the ways of the flock he may have some assurance of suc-1. Too expensive and too impractical cess. But many mistakes and failures are sure to beset the path of the inex-

Many poultry men fall to market correctly. They either get too far away from the market or try to force themselves upon an overcrowded market. And they often fail to put their understanding of the market condi-

than pay for its keep.

A very common cause of failure is just plain neglect-neglect in cleaning excuse for this kind of failure. poultry man should be continually on guard against insects and diseases. And above all, he must always keep his house and his birds clean.

the flow of milk.

goods up in attractive packages and do not advertise efficiently. A good tions of a given locality is essential in building up a trade there. It is absolutely essential to have good stock to start with. No poultry

man need expect to have any success if he starts out with a flock of boarders.. The stock need not be pure bred, but it must be good enough to more The flock must be improved by care-

ful selection and by the introduction of new strains when necessary. Each brood of chicks must be better than the last if the poultry business is to be a success. The boarders and the stragglers must be culled out. Constant improvement is the surest road to success.

up the house; neglect in spraying and in fighting lice and mites. There is no All of these causes of failure may b

summed up in one word. And that word is "Mismanagement." The three great laws of success in poultry may be summed up as follows: Get some experience before going into business Improve your stock. And keep clean ure is lack of experience. No one all the time. The only cure for misshould enter the poultry business off- management is common sense, and the hand without any experience in rais- farmer who expects to make a success out of poultry should keep a good

## TEACHING CHICKS TO ROOST | COMFORT FOR SETTING HEN

Difficult Matter to Keep Little Fellows Clean if They Are Permitted to Remain on Floor.

It is often advisable to teach the chicks to roost when eight to twelve weeks old. Wish they are allowed to remain on the floor it is difficult to keep them c'van and to keep them from crowding. If wide roosts, three to four inches, are used there is but little, if any, nore danger of crooked breasts than if the chicks are allowed to remain on the floor.

The chicks can generally be taught to roost by putting the perches near the floor and pracing with them one or two old hens or older chicks that are in the habit of roosting.

If this plan is inconvenient or does not prove effective, the chicks may be laying hens. A laying hen using the go there on their own accord.

#### **FOWLS DEMAND PROPER FOOD**

Green Feed, Meat Scraps, Grain and Lime Are Required-Fresh Water is Also Necessary.

Laying hens, like the milch cow, demand proper food. A mixed ration comprising green feed, meat scrap and PICKED UP IN THE HOG LOT grain, will, with the addition of lime Overcrowding is Anything but Ecoin some form, supply all that is required. Fresh water is also a necessity. Chaff from alfalfa or clover affords green food. The former, ground Do not keep too many pigs together ready for use, may now be bought by and compel them to sleep in one nest.

The most economical gains in pig the pound, Hens eat it readily. Being rich in protein it is better for laying eeding are obtained by a judicious fowls than most forms of green food, blending of nitrogenous and carboand makes necessary less meat in the ration. Crossing may improve the hogs for

Well-Fed Hen Paye.

-Are you going to allow the price of grain to cause you to underfeed your great effort to have a few acres of alchickens? Better sell them now falfa, because it furnishes unusually does not take a half-starved hen long valuable grazing for hogs, and can be to eat her head off. The well-fed hen pastured off several times during the will lay enough eggs to more than pay her keep. There is nothing more disgusting than to have a lot of unruly hogs run-

Color Affects Price. The color of eggs has something to do with their sale in most markets. Some prefer the brown tints and some the white. In preparing baskets for sale it is well to cater to these tastes. Put all browns in one basket, all whites in another. Paper cartons for transportation, holding one dozen eggs, can be had at paper dealers' Brown shelled eggs are apt to be large,

since most of the larger breeds of

fowls lay colored eggs. Color really

has nothing to do with contents

In figuring on amount of pasture or "hogging down"—it is estimated Laying Season for Geese If sexes are equal, geese pair. The laying season usually opens in February. Young ganders make better There is so great a difference in corn, breeders than do young geese. As a size of animals, etc., that there is no certain way to get at this but turning rule geese are free from disease. Old geese are more reliable, and lay more eggs than do young geese. Geese live longer than do any of our domestic

> For Winter Eggs. Important as is breed, feed and care are even more necessary for good winter egg production.

Should Be Guarded Against Fussy Work of Laying Fowls-Plan for Arranging the Nest.

In setting a hen well one must see that every surrounding is the best possible. That the nest is not too deep and rounding in the bottom, but nearly flat, with rounded sides so that the eggs will lie in a single layer and not pile upon each other in a manner that is more than likely to cause them to get broken.

In cold weather it is a good plan to line the nest box first with paper, then the nesting straw or chaff. This pre vents the cold from getting to the eggs

so easily from below It is essential that the setter b guarded against the fussy work of the

On the other hand, the setter must not be confined so closely that she cannot come off at will to feed and

## USE ONLY GOOD INCUBATORS

Many Little Details Require Skill and Intelligence in Operating Machine Successfully.

Homemade incubators are not generally desirable, since they are seldom scientifically adjusted, nor made of best material, nor properly fitted up. The lamp, its burner, its wick, its chimney, its location for heating, all require skill and intelligence. So does the body of the incubator, as regulator, ventilation, the moisture supplies and the tray.

Do not buy from any old firm or buy any discarded machine. Get the best by test and give it the best that is in you. Then keep a record of hatches from both hens and incubator and compare results, not forgetting that your hen is free to lay again while her first eggs are hatching.

Legs of Birds for Show If show birds have rough legs, bandage them in cloths spread with vaseline, for a week before the showwashing them first, of course. The vaseline leaves a stain on the feathers which is hard to get out in the wash, so be careful to push the feathers back and bandage under them.

Onlons for Poultry. Onions make an excellent feed and, chopped fine and fed to the poultry occasionally during the winter, will materially help to keep them in good condition.

In cold weather 11 to 13 eggs are nough for a setting hen. The number

may run as high as 17 in very warm weather. Water is Essential.

form an egg. Too Much Fat. A sole diet of corn produces

A great amount of water is used

much fat.

WINTER FEED FOR THE COWS Important for Dairyman to Provide an Abundance of Different Feeds to Keep Up Milk Flow. (By R. G. WEATHERSTONE.) During the winter months it is gen-erally found difficult to provide such food as is necessary for the dairy cow to keep up the regular flow of milk. At this season of the year feed is generally scarce—the proper kind for the dairy cow—and that which we

have on hand is often of an inferior quality. After coming off the green fresh grass they do not relish such dry feed and being of an inferior quality one will soon notice a great decrease in

For this reason it is very important for the farmer to try to provide an



A Fine Type of Dalry Cow.

abundance of different feeds to make

up for this dry or inferior feed. Of course the flow of milk cannot be kept up to what they give during the spring and summer when pastured, but with plenty of first-class hay, such as alfalfa and good clover, and fine feed of bran and corn meal kept on hand that it may be fed liberally two or three times a day as slops, there will not be so much decrease in the milk supply after all. That is, if it is

given to them liberally and regularly.

Do not think it is a waste to feed such feed when there isn't anything but dry hay of some kind to feed on On the latter, the cow can barely maintain her flesh, much less keep up the milk supply.

When we have good clover hav and alfalfa, not so much of the bran, fine feed or meal is required, as both, when cured properly, are very strong feeds and cattle thrive on them.

I am not going to attempt to give the amount that should be fed, as I leave that for the dairyman to decide for himself. What I wish to impress upon the reader's mind is this: The necessity of having on hand always a liberal supply of bran, meal, fine feed, etc., to go with the dry hay or corn fodder, which is generally of an inferior quality, fed at this season of the

Without the above feed mentioned, it is impossible for the dairyman to obtain good results during the season when cattle are not pastured.

#### TASK OF DEHORNING CATTLE

Operation is Most Frequently Performed to Prevent Animals From Injuring Each Other,

Cattle have been dehorned since about 1790. The operation sometimes is performed to remove horns that are placed on the perches after dark for same nest will soon break up all possible broken or otherwise injured, but most frequently it is to prevent horned animals from injuring one another. Usually it is considered justifiable on account of the benefits that are derived from the operation.

> The growth of horns on calves may be prevented entirely by the liberal use of a strong solution of ordinary lye; or if the use of a solution is not desirable it can be purchased at drug stores in the form of sticks known as caustic potash. This should be applied immediately after birth to the place where the horn makes its appearance. Care should be exercised when using this remedy because the lye will eat away all the skin with which it comes in contact.

Various kinds of instruments are used for the removal of the horns of older animals. If an ordinary saw is used it should be sharp and fine, as this lessens the danger of splintering the bones of the head during the operation. If a large number of animals are dehorned, quicker and safer work can be done with a "dehorning instrument." This can be purchase of any veterinary supply company for \$7.50 to \$10.

It is best not to dehorn during the fly season. Sometimes the horn is cut close to the head and cavities are opened which become filled with maggots if flies are prevalent. The animal suffers intensely, if this happens, and there is a rapid loss in condition If cavities are accidentally exposed a small piece of cotton, smeared with tar, may be applied to the wound and held in place by means of a bandage around the head. This also is of great value if excessive bleeding follows the operation. If maggots gain entrance to the cavities of the head they should be washed out with a weak, watery solution of ordinary dip.

Feeding Skim Milk Calves.

The feeding of skim milk calves during the winter months is attended by greater risks from "scours," since the milk is fed at variable tempera tures unless the greatest care is exercised, and this variation, irregularity and close confinement are sure to cause the most damaging results among the animals' digestive organs.

Sell the Kloking Cow

The kicking cow will drive away the hired man and make the boys tired of farming. Send her to the butches