

Use only dairy cows.

Dock the lambs early.

Don't be slow about spraying.

Chickens devour many insects.

Use caution with cottonseed meal.

Move the brood coops every two or three days.

It is always best to have a system, and stick to it.

Blood tells with sheep as well as with everything else.

Persistency is one of the great traits of the best dairy cow.

One of the worst evils in the orchard is the so-called pear "blight."

A milk house aids very much in the proper care of milk and milk utensils.

Be sure the hogs, old and young. have plenty of pure, fresh water to

The best kind of a garden club is a wire net fence to keep out the

For orchard spraying a threeeights or half-inch hose is best, and in lengths of fifty feet.

The grape is one of the surest of crops, as after the third year a generous crop may be expected.

Ten acre fruit growers and egg producers who adhere to modern methods are making a success.

It will not be necessary for any corn-belt farmer to go many miles to see what a silo is like next winter.

Don't get the idea that you cannot obtain satisfactory results from spraying just because your neighbor failed.

The hen house that is whitewashed inside and has clean widows will be more healthful and attractive for the fowls.

The heifer calves from parents of long dairy inheritance are almost sure to equal or surpass their dams in pro-

The sudden change from the warm stable to the night-and damp ground, might prove serious with some of the heavy milkers.

Successful dairying means that it is vital to steer clear of dry cows and indifferent producers. High priced feeds brings this home.

Many a case of chick disease might be traced to the chilling they so often get in transferring the hatch from the incubator to brooder.

The chief value of the manure spreader lies in its ability to put a thin coating over a large area, and thus produce maximum results.

The building of a silo is not a speculation by means of which you can get something out of nothing, but it is a good, sound business proposition.

When done spraying each day, run some clean water through the pump, to wash out the spray mixture and with the result is yet to be heard from. avoid corrosion of the working parts.

Ducks do not like whole grain, but prefer soft food. When winter apat night adding animal meal or cooked | chicks.

trade, make it a rule to put eggs in everlasting base for the separator, the package that are not only strictly and it lengthens the life of the mafresh but which were made from pure, chine, too. sweet food.

need have no fear about prices. First customers and the surer you are of class fowls always bring good prices, getting from 40 to 50 cents a pound for no matter how great the surplus of all that you make. ordinary stock is.

If the dairymen could come into direct contact with the people who eat | bring in the money, while their dams their butter there would be less need are producers of dairy products at a of discussing the subject of making a season when they reach the top in better grade of butter.

with the highest pressure you will definite account of the cost and profit. hose. It will save delays at a crit- of the dairy farmer. ical time.

one-balf gallons of water for twenty but older plants and larger roots re-

Fresh eggs hatch best.

Keep the calf pen clean.

Give the turkeys free range.

Sow for a succession in crops,

Little chicks enjoy green feed. Kindness is well repaid in the

Go slow with corn to the brood sows and young pigs.

Dock the lambs early. There is less hock and no danger.

Do not sell a pig until it is in best endition, or you will lose.

Sows that are to produce fall litters should be bred in May, if possible.

The wise sheep owner will never allow a setback in the growth of the

Collar boils need the attention of a veterinarian who can easily remove

To attain the greatest success in dairying, it is necessary to have dairy-

Cows are not always to blame for being unprofitable. Often the fault is nearer home.

Hens that have been crowded for winter eggs should have no place with the breeders.

The hens find considerable animal food in the bugs and worms that are beginning to appear.

Be careful how you breed your colts and don't be guilty of flooding the market with misfits.

Some cows are like some people. notional, have to be humored to get them to do their best.

Some cows are so persistent in their milking habits that it is dangerous to force them dry.

The successful dalryman endeavors to raise as much of the feed needed as possible on his own farm.

The smoother the perches the more easily they can be kept free from vermin. And have them movable. Grasshoppers sometimes inflict in-

jury on the young trees by eating the tender bark on the small limbs.

As soon as scouring begins, give the call a teaspoonful of ground cloves. One dose is usually sufficient.

The sooner a hen can be turned loose with her small chicks the better after they are able to run and pick a

Spray your trees whether they have a crop or not. Spraying in off years s just as important as in years of heavy crops.

Calves at the age of three or four months will consume some silage if care is taken to pick out the leafy por-

Many small chicks are counted among those lost because they are allowed to follow the mother through the dew-covered grass.

Make sure of one thing-if vigor is not in the stock that produced the eggs, the chicks will not live and thrive as they should.

Whether eggs are in incubators or under hens it will be well to wet them with water that feels warm to the hand, on the nineteenth day.

As a rule late seeding should be deep, in order to strike moisture, and thus start the plant ant once on its handicap race against the season.

The careful farmer who gives his personal attention to the making and feeding of silage and is not satisfied

The neglect to keep brooders clean, and to provide clean litter for chicks to scratch in, is responsible for conproaches they may be fed twice a day, siderable mortality among baby

A sack of cement and three or four To get a good, select private egg times as much sand will make an

Market the butter often. The fresh-The person who raises good stock er it is the more it will appeal to your

> Plan and breed now for early calves next spring. They're the ones that quality and price.

Test the spray hose several days There may be certain lines of farmbefore needed for spraying. Try it ing in which it is difficult to keep a use. If it burts easily or leaks, make but dairying is not one of these. There the needed repairs in it, or get a new is no excuse for ignorance on the part

It requires some degree of courage Soaking cabbage seed in a solution to thin out lettuce, radishes, beets, of one ounce of formalin to two and etc., when the plants look so sturdy, minutes will be a good start against quire more soil, and unless they have cabbage rot. Soil and manures free it, they will be poorly nourished. Letfrom black rot germs will also be tuce should be thinned to four inches in the rows.

## RAISING HORSES FOR GENERAL NAMES OF VARIOUS PARTS OF FARM WORK MADE PROFITABLE

Possible to Breed Farm Mares and Make Lucrative Business Out of Colts at Very Small Expense-With Large Animals There Is Better Profit in Raising Mule Colts.



farm of any size is one that is a mat- activity and quick movements made ter of importance from the purely me think she was a young mare, as business standpoint, as well as from she had none of the appearance of age. personal interest. There was a time I said to the owner, "That mare looks when this question was very general like a mare it would pay to get some for farmers who had land at all suit- colts from." able for the business to raise their from time to time in the teams for

farm work. a craze. I am old fogy enough to like the "good old ways," says a writer in the Farm Progress, and I still think that on the great majority of farms, if not absolutely all of them, it will pay The fourteen colts no doubt averaged to raise all the colts that may be needed for use on the farm, and any I had a mare with the same qualities more that can be raised without inter- from which I got some splendid colts, fering with the farm work.

There has not often, if ever, been a time in the last two generations when old when she died from an acute atit did pay to raise good horses. And tack of colic. Some of her colts sold now, although power vehicles and as high as \$175 each. power-driven implements have certhe business, even if at times it is a little inconvenient.

make something out of every depart- small expense. I never half-starved ment, if possible, on the farm where our colts. When foaled in the fall general farming is done. The amount they were ready to run to pasture by that can be made will depend alto- spring, and it is a very poor farmer gether on the capacity of the individual to supply the executive ability needed to do justice to a variety of

interests. Not long ago I took a drive of ten miles with a man who was taking me to his home on the farm. He was driving a sorrel mare of about medium weight, and extremely quick and alert in her movements. She was not fast, steady trot, and was reeling off not mule colts.

Farmer Needs to Study Require-

ments of Various Crops He

Grows and Plan for

(By W. M. KELLEY.)

success with a soil not fitted to the

crop. We must make a more intelli-

gent study of the selection of crops

and more certain profits. There is

something that is very interesting

about the preference of crops for cor

One of the first things for farmers

to learn is to find out which crops are

best adapted to his soil and grow

them on his farm. He needs to study

the requirements of the various crops

that he grows and plan his rotation

of crops so that each crop may be

grown under the most favorable con-

While I am a staunch friend of sta-

ble manure and constantly urging the

keeping of more and better farm

stock, yet I can see the necessity of

facing the situation in a practical man-

The average farmer has reached a

point where stable manure will not

supply the adequate amount of plant

ity, especially phosphorus, and it is

clearly to our interest to supply this

one element to our soils if we fit the

On soils possessing an abundance of

humus and nitrogen we may purchase

the phosphorus in the form of the raw

soils to the needs of our crops.

the deficient elements.

tain soils and climates.

ditions.

There is no use in trying to achieve

Rotation.

FIT THE SOIL

MAKE THE CROP

The matter of supplying teams for a | less than a mile in five minutes. Her

"I have been breeding her, but have own colts to supply the deficiency quit now," he replied. "She will soon be twenty-one years old, and I have had fourteen colts from her since she It is less so now in these days when was seven. They were all good, and making a specialty of things has the youngest, now six months old, reached the point that seems almost looks as good as any of the rest did," This mare had been doing farm work mostly during all that time, and was

used a great deal for driving, because she was quick and always ready to go. \$150 as three-year-olds. A few years ago used her for farm work as well as driving; still she was twenty-five years

Of course, it is sometimes a little tainly taken the place of a vast num- annoying to either drive or plow with ber of horses, first-class animals are a mare with a young colt, but fall selling at as good prices as they ever colts, as a rule, do not give nearly so did. Consequently, there is profit in much trouble as those that come in the spring. This makes it possible to breed farm mares and make a profita-The thrifty farmer will generally ble business out of colts at a very who cannot supply ample pasturage for colts at least nine months in the year. But with plenty of clover hay, or pea hay, colts can get along with

very little grazing or grain. If, therefore, any one is in a posttion to get some colts from work mares I would counsel them, by all means, to breed them. In most cases, with large mares, there is a better but seemed to go along at a good, profit in breeding to a jack and raising

> gen better results will be obtained by using acid phosphate, which is readily available to the growing crops.

With clover and manure plowed under, to liberate potash, and supplemented with this purchased phosphorus, the fertility problem will be solved on the average stock farm. On many types of soil potash will be needed, but the average stock farm in the middle west has plenty of potash locked up in its soil to produce good crops for a hundred years or

## and that can be made to return larger READY RESULTS FROM A DAIRY

Cow Is Constant Quantity as Far as Her Production Is Concerned - Regular Money Crop.

The great value of dairying in connection with mixed or diversified farming is that the cow is a constant quantity, so far as her production of milk is concerned. She can be banked on more than poultry, hogs or field crops to yield a constant amount of salable products every week, if the is given a variety of good feeds and general good care.

This cash coming in at regular and frequent intervals from dairying enables the farmer of moderate means to use the money to good advantage food to produce the maximum yield of as it is needed, for general running grain and other farm crops, and the expenses and making things go. For only sensible thing to do is to supply this reason the average dairy an should become prosperous and have The generality of soils on our stock a well-improved farm. farms are deficient in mineral fertil-

The only regular money crop for the farm is that which comes from the dairy house. Every week the milk and butter goes out and the money comes back.

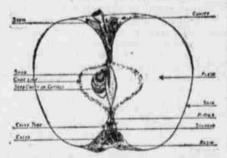
The modern dairyman seldom has to go to the bank to borrow money to ground phosphate rock and mix it tide him over till he sells his crops, with the stable manure, but on soils because he is selling his crops every that are lacking in humus and nitro- week.

# APPLE GIVEN AND DESCRIBED

While There are Great Ranges of Variation Within Individual Limits of Any Variety, There are Certain Characteristics Constant and Dependable for Classification.

"analyze an apple, giving the names have russet markings that are large, and descriptions of the various parts." To anyone who is interested in scientific pomology this is quite necessary slender, stout or fleshy. Sometimes to be well understood, writes H. E. Van Deman in the Rural New Yorker. For the benefit of the general reader, I will try to make the analysis as plain as can be, thus serving, if possible, both the scientifically inclined and the more ordinary worker with fruits. An apple is known in science as a

pome, which is a fruit that contains its seeds in capsules surrounded by a fleshy pulp. Other examples of the pomes are the pear, quince, wild hawthorn fruits and those of the rose. All of these have five capsules containing the seeds, which together compose the core. In making a scientific or pomological description of an apple we begin with the outward appearances. There have been various systems or methods of classification by pomologists for centuries past. Some of them have been very curiously, not to say absurdly, founded on certain real or imaginary characteristics, while others were quite reasonable and practical. The best of them all, according to my judgment, is the system devised and published by Dr. John A. Warder, of Ohio, in his American Pomology, The first divisions in his classification are based upon the shape of the vertical sections and are four in number: Class I, Oblate or Flat; Class II, Conical; Class III, Round or Globular; Class IV, Oblong. Next comes the shape of the cross or transverse sections, called Orders, of which there are two, Regular and Irregular. The



The "Analysis of an Apple."

third stage in the system is regarding the flavor, which are termed Sections. of which there are two: Section 1 includes the varieties that are sweet and Section 2 those that are subacid or sour. The last set of this descriptive classification is made up of three Subsections. The first of these includes all varieties that are yellow or green and may be blushed and even quite covered with red in some rare cases, but never striped. By this system almost any apple may be properly classified, and if listed and described in detail might be identified by any careful student of pomology While there was never but one edition Dr. Warder's book on apples, American Pomology, and that was 1ssued in 1867, and many valuable varieties have been introduced since all our books on apples, by which they there are great ranges of variation classification must be based. Mere alphabetical or other ordinary arrangement is of much less value.

To describe an apple in such manner as will lead to an understanding of its individual peculiarities I have made a drawing of a specimen of the The most important parts are named ind pointed out in such a way that they may be studied. To begin with, ing from either end. The size may be sionally. large, medium or small. The depression in which the stem is set is called the cavity, and it may be regular, irregular, or lipped; large or small; are experimenting with ostrich raisdeep, medium or shallow; with a ing.

One of the renders has asked me to | steep, abrupt or wide slope; it may medium or faint, or none at all. The stem may be long, medium or short; a variety will have stems of all these descriptions, but they are generally of one type. The depression at the calyx or blossom end of an apple is called the basin. It may be regular, irregular, waved, furrowed or knobby; deep, medium, shallow or wanting; wide or narrow; marked with russet either cracked or smooth. The calyx may be open or closed; with the sepals long or short, upright or reflexed. The surface is smooth, rough, bloomed or russeted. The color, yellow, green, blushed, red striped and with all possible variations of intensity and lightness of shadings, mottling, splashings and suffusions. The dots are very characteristic and quite constant. They are numerous or scattering; large or small; dark or light; round or pointed; with light, dark, green and sometimes on raised bases. The skin may be thick and tough or thin and tender. The flesh is yellow, white or stained with red and very rarely pink throughout; and its texture may be fine or coarse; firm, tender or soft; and in weight light or heavy. The core may be large, medium or small; conical, round or oblate; open or closed; meeting or separate from the tube. The calyx tube large or small; long or short. Axial diameter long or short. Seeds numerous or few; large or small; plump or narrow; light or dark brown. Flavor sweet, subacid or sour; rich aromatic or spicy. Quality good, very good, best or poor. Season very early, early, mid-summer, fall, early winter, mid-winter and late win-

Thus it is that a pomologist would describe an apple. Blanks for descriptions are prepared for the government records and also by some of the states. I have them for my own private use in keeping records of the varieties I have examined. Paintings, models and historical notes of all interesting fruits are also made and carefully preserved in the office of the U. S. Pomologist at Washington, which is work that I planned and instituted when I was in charge of that office over 20 years ago. These records are of inestimable value and will be more more so as time advances.

#### **EXCELLENT FEED** FOR THE CHICKS

Hard Boiled Infertile Eggs, Ground in Meat Chopper and Mixed With Bran are Good.

(By PROF. W. A. LIPPINCOTT, Kansas Agricultural College.)

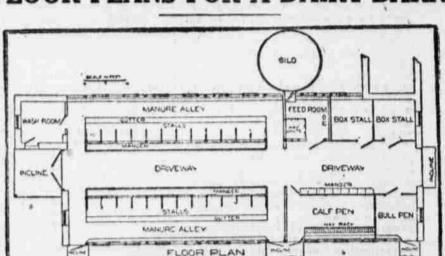
An excellent food for the chicks is made in this way: Take the infertile eggs-those that have been tested out that date, it is even now the best of of the incubator-hard boll them, and grind in an ordinary meat chopper. may be studied and identified. While Mix this with bran and moisten with water. If you have some old, dry within the individual limits of any va- bread which has not become moldy it riety, there are certain characteristics may be crumbled and added to the that are quite constant and depend- bran and ground eggs. Do not make able, and upon these any intelligent the feed sloppy or the chicks may, gorge themselves.

Many other good feeds, such as fine cracked corn, cracked wheat, cracked kafir and steel-cut oats may be fed. Milk curd and beef scraps make a good change in the food. These two supply to the chick about the same Delicious that was grown in California food elements it would get by eating insects and worms.

Charcoal, fine grit or finely ground bone should be kept where the little the form, which is one of the first chickens can get it. If it is possible, points that anyone will notice, may be they should be kept on a grassy plot, int, conical, round or oblong, as looked and if not, green stuff should be supat from the side, and round, elliptical, plied them. Alfalfa is the best for irregular or even angular when observ- this, and may be given them occa-

> Ostrich Raising. Some farmers in Southern Missouri

### FLOOR PLANS FOR A DAIRY BARN



The accompanying illustration gives wide and about four inches deep. The inches to five feet long, depending upgutter should be from 16 to 18 inches cows,

the floor plans of a modern dairy barn | manure is planned to be two feet wide for 24 cows, as designed by the and six inches deep, the bottom being bureau of industry of the United States | two or three inches higher than the department of agriculture. The floor of the stalls. Patent stanchions stalls are planned to be three feet six | may now be bought so cheaply (one to inches wide and from four feet eight two dollars each) that it is scarcely worth while to bother about making on the size of the cows. The manure them at home for a small herd of