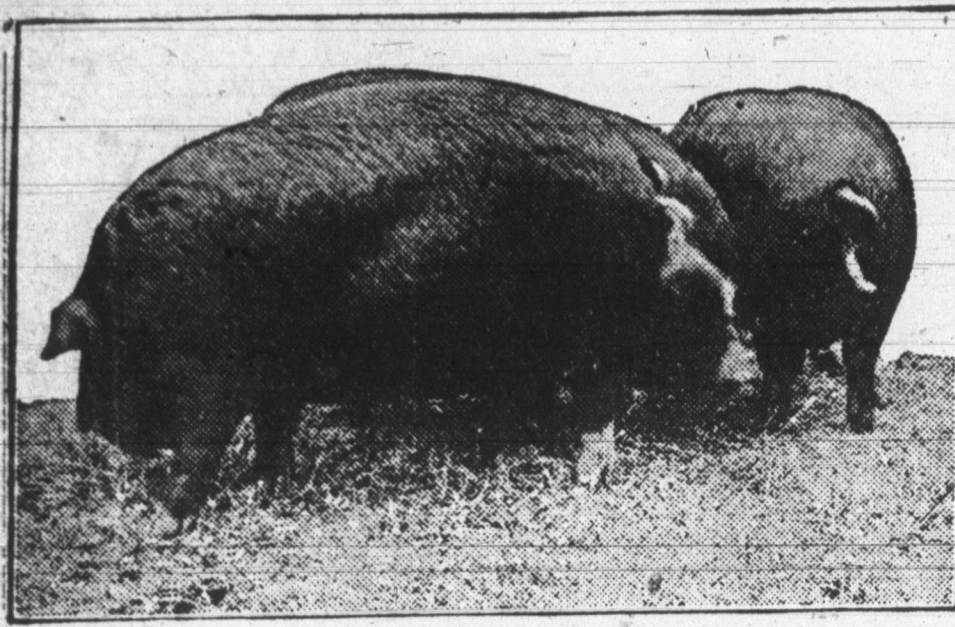


MAKING the FARM PAY

By PROF. P. G. HOLDEN, Former Dean of the Iowa Agricultural College.



Hogs Raised on Alfalfa.

LIVE STOCK AND LEGUMES

A ton of average Iowa or Illinois soil contains but a few pounds of actual fertility; that is plant food material which is available or ever can become available for the use of crops. The remainder is simply waste material and cannot be used by plants as food. When this fertility has once been exhausted, remember that it is gone forever and will not return except as it is purchased.

The actual value of soil is shown by its power to produce crops. This productiveness depends not only on the kind of soil, but upon the condition of it. The soil must be well drained, contain a sufficient amount of vegetable matter or humus and be well worked, in order to be in proper physical condition to produce crops. These conditions are brought about principally by tillage and crop rotation.

If it is possible then for the farmer to control the air circulation in the soil, its water-holding capacity, the bacterial content, and its available plant food by proper soil tillage, it is surely profitable for every farmer to give his land careful, personal study so that the conditions in it are the best for the production of the largest crops of the best quality.

Productive Land.

On farms where live stock is kept, the land is much more productive than on farms where exclusive grain farming is followed. Where the crop is sold on the market all of the plant food contained in the crop removed, is lost to the soil. Where all crops are sold, a practice familiarly known as "mining the soil," the result is, without fail, the impoverishment of the soil. This practice will result in a deficiency in organic matter, which is one of the most valued properties in farm manure, and can be most economically supplied by its use.

No man should expect to make a profit from farming by growing one

supply, and therefore the supply of available plant food, had been more nearly maintained in the rotation of the manured plots. A great difference in the color of the soil of the two plots at the Missouri station where corn had been grown continuously both with and without manure was noticeable. The unmanured plot was much lighter in color and of much poorer texture, thus showing very clearly its lack of humus as compared with the one beside it. It must not be understood from this that crop rotation alone will maintain fertility, but it is the first essential, and the rotation must include legume crops.

Legumes are humus-building crops, because in order to put humus in the soil, nitrogen is necessary, and these plants secure it from the air. This experiment shows clearly the advantages of live stock farming in maintaining soil fertility.

Upon the plot where farm manure was applied with a rotation of corn, wheat and clover, there was a margin of 53 bushels of corn per acre above the cost of growing. Estimating that it will cost 25 bushels or about \$10 per acre to grow the corn, there is a cash profit of 50 cents per bushel, of \$23.50 per acre.

In the second plot, where no manure was applied, with a rotation of corn, wheat and clover, there was a margin of 26 bushels above the cost of growing or a cash profit of \$13.

On the plot where corn was grown continuously for 17 years, without rotation, there was a loss of \$6.50 per acre, or 13 bushels below the cost of producing an acre of corn.

Feed What You Raise and Raise What You Feed.

Some of the crops will be marketed, but in the end you will find that hog skins and steer hides are the best grain sacks that you can have on the farm. Convert your grain and hay crops into beef and pork and drive it to market on the hoof. Alfalfa,

The Iowa Beef Producers' association carried on an investigation in Iowa covering a period of five years. Data was gathered from 20 Iowa farms in nine different counties throughout the state. (See chart.)

On ten average live-stock farms 52 bushels of corn per acre were produced as against 36 bushels per acre produced on ten average grain farms. On ten average stock farms 39 bushels of oats per acre were produced, as against 32 bushels per acre on ten average grain farms.

Ten average stock farms produced 2.2 tons of clover per acre as against 1.2 tons per acre on ten average grain farms. These comparisons speak for themselves.

One-Crop System.

A one-crop system will impoverish any country, and in turn it will impoverish the people that are on its farms. It is only through diversification of crops and the using of our energies every day of the year, that we can make a rich country.

Live-stock farming is diversified farming and calls for a system of crop rotation with legumes. It returns fertility to the soil. It adds interest to the work of the young people and finally it is best insurance of an income. The kind of live stock depends upon local conditions. First, the preference of the farmer, second, the environment. Cows, hogs, horses, mules, beef cattle and sheep, offer a large range of choice and fit into many conditions. Horses and hogs are found on every farm and they become very profitable to the man who understands them. Sheep raising and dairying may be combined as one herd or handled separately.

In either case they will be found profitable. Varying combinations of live stock may be found profitable. Live-stock farming requires a dependable feed supply. Silage and alfalfa are an excellent basis. Corn, kafir, and other similar crops furnish silage.

Each farmer should make a business of growing his own beef as well

FEED WHAT YOU RAISE		
FERTILITY MARKED IN FARM PRODUCE		FERTILITY VALUE
ONE ACRE	2 TONS	
ALFALFA		\$28.42
CORN		16.80
SOY BEANS		14.70
OATS		9.70
2500 LBS.		2.50
400 LBS. FAT CATTLE		1.90
400 LBS. FAT HOGS		1.67
100 LBS. BUTTER		.04
MO. CIR. 30		

as his own vegetables. Also his own protein feed for his stock, and expend as little money as possible for bran, cottonseed meal, and other high-priced protein feeds.

Dairy Essentials.

The dairy business, too, calls for intellectual activity. Such exercise is good for the boys and girls. The dairy business even up things on the farm. It gives steady employment. It is a cash business. A man feels independent when he knows that his income is steady. Dairying builds up the farm. It requires fewer acres and consequently leads to more neighbors. There is always an air of prosperity about a well handled dairy farm. The dairy business adds permanency to the community. The success of the man engaged in it depends upon keeping milk records. It costs but little and returns a hundredfold. There are good cows and poor cows. A farmer should find out which are the poor cows and which are the good ones. This can be done by marking down what they produce each day, and using the Babcock test. Milk the good cows and sell the unprofitable ones for beef.

"Feed what you raise, and raise what you feed" has been the watchword of the best farmers in America for many years. It is the only safe system.

Living on the farm means more than most of us realize. Not just to live there, but to make it a home. Not just to grow corn, wheat and alfalfa, but for the benefits that may come to our homes and to our children through the things that we produce.

It does not make much difference how much wheat we raise or how much corn we grow, but it does make a tremendous difference what we do with the profit that we get from the corn and the other things that are produced from the soil.

Farmer Was Power.

The pioneer American farmer of the nineteenth century was a power in his day. He did well his work of clearing away the forests, establishing homes, building roads and settling the wilderness. And if he did not cultivate and care for the soil as he should have done, we cannot blame him, because the need was not pressing that day. It was not his problem. The care of the soil is the problem of the farmer of today. He is being called upon for many things that are real necessities. He must improve his soil. He must not forget that Live Stock and Legumes are the basis of Permanent Agriculture.

No Horse for Farmer.

A farmer has no business with trotting stock. Racing horses are like prizes in lotteries. The drafter always sells for more than his cost.

Feeding Dairy Cows.

In feeding dairy cows give them all they will clean up at each feed but no more.

FOR SCHOOL WEAR

A smart little outfit for school days is shown in the sketch presented herewith. The little suit—a three-piece affair—is made of navy and Scotch plaid serge. The bodice is sleeveless,



Girl's School Suit of Plain and Plaid Serge.

to be worn with a gump of silk or some washable fabric. The coat should be lined with a lightweight silk.

To make this garment for a girl of ten or twelve years will require four yards of serge 36 inches wide, together with three-quarters of a yard of plaid fabric for the trimming.

Smart patch pockets give an additional style touch to the little coat, which is otherwise entirely plain and of the box type.

Many separate skirts for girls of ten to fourteen years are featured for fall wear. Serge and checked woolsens, as well as corduroy, are fabrics favored

for these serviceable little skirts, to be worn with separate blouses of challis, pongee, crepe de chine, linen, etc.

The skirts have self-attached belts, and skirt and blouse are attached by means of buttons on the waistband of the blouse and buttonholes worked in an inside belt of the skirt.

A military note is evidenced in many wool fabric dresses and suits developed for girls for fall and winter wear. Flat braids are featured in the trimmings favored, and there is a pronounced vogue for colored wool embroideries in high colors.

Velvet and velveteen are to be shown in both plain and dressy models for later wear.

Taffeta in plain color and plaid effects is to be used for dressy frocks for afternoon wear, and these silks are also favored as a combination for both serge and velveteen.

A normal or long waistline is the best choice for girls of the school age, except in the little party dresses developed for them, when the empire or slightly raised waistline is occasionally favored.

The use of detachable collars of embroidered organdie is a feature of serviceable little wool fabric models developed for school wear.

Beauty Secrets.

Perspiration keeps the body at the proper temperature, clears out the pores of the skin, removes accumulated acids that if left in the system become poisons, and it increases circulation. During the summer few women need to suffer from blackheads even if they do not exercise, as the heat of the sun produces perspiration and the face is cleared out.

The skin covering the body needs as careful attention as the skin of the face. It requires a daily bath in water not too hot and good rubbings with a rough but not too coarse towel.

If the skin performs its proper functions every function of the body is aided, from the action of the muscles to the digestion of the food; but the greatest aid is given to the circulatory system.

TAKE GOOD CARE OF SHOES

If Leather Is Kept Soft and Trees Used, Life of Footwear Will Be Much Extended.

With the cost of shoes going up it pays to give special care to one's footwear nowadays.

Some women seem to think that shoe trees are merely pretty ornaments, whereas they are really necessities. The leather in shoes should not be allowed to shrink, which it is apt to do if shoes are taken from moist feet and left in a warm place. If trees are used the shoes will keep their shape. Wet shoes should never be dried at a stove, or on a radiator, or near a heater of any description. The effect of heat so applied is to dry the oil out of the leather and cause the shoes to crack.

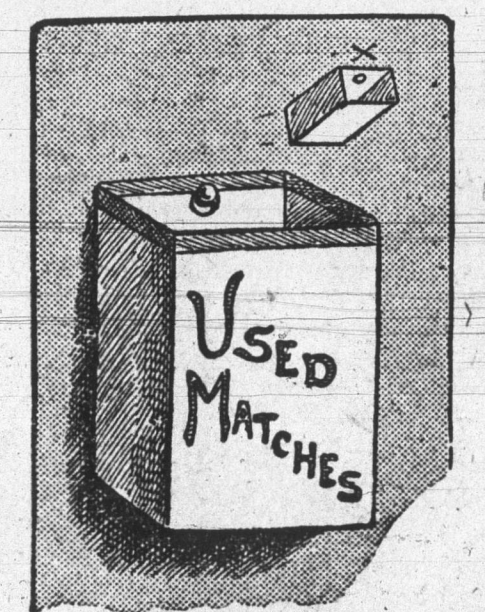
Another thing not to do is to let shoes stand in a damp place, or in a closet near the heat. Leather should not be allowed to become dry. It should be kept soft, quite the same as when it is in its natural condition on the animal. Natural animal oils should be rubbed over the shoes occasionally. In many cases if one would rub banana skin on the shoes it would be sufficient. This not only cleans, but keeps the leather soft. For brown shoes this is especially good, as it takes off all stains, and one using this simple cleanser is astonished at the result.

The two principal things to be remembered regarding the care of shoes are that the shoe trees should be slipped in as soon as the shoes are removed and that the leather should be kept clean and soft.

DOES AWAY WITH UNTIDINESS

Box Into Which Used Matches May Be Dropped Should Have Place in Every Household.

It is a good plan to make a little box such as is shown in our sketch, that can be hung upon the wall by the side of the mantelpiece and into which all used matches can be dropped.



Box for Used Matches.

In these days used matches are well worth saving, as when a sufficient quantity of them has been collected they will go a long way towards lighting a fire.

The little article shown can be easily made from a mustard tin or other tin of a suitable shape and size. The tin is covered with dark green silk, the

Second Coming of Christ

By REV. JAMES M. GRAY, D.D.
Dean of Moody Bible Institute,
Chicago

TEXT—Waiting for the coming of our Lord Jesus Christ.—I Cor. 1:7.

There is unusual interest at this time in the second coming of Christ, and many are the inquiries as to what it means and when it may take place.

The importance of the subject from the divine point of view is seen in that it is alluded to over 300 times in the New Testament. In deed perhaps there is no doctrine of Christianity dwelt upon to such an extent as this, unless it be the fundamental one of our redemption through the cross.

What Does It Mean?

The second coming of Christ means a personal, in the sense of a visitor reappearing of one Lord on this earth. Such seems to be the teaching of his own words when, in the presence of the high priest he said: "Hereafter shall ye see the son of man sitting on the right hand of power and coming in the clouds of heaven." This is recorded in the 26th of Matthew at the 64th verse. The angels taught the same truth to the disciples on the Mount of Olives when they said, "Ye men of Galilee, why stand ye here gazing up into heaven? This same Jesus which is taken up from you into heaven shall so come in like manner as ye have seen him go into heaven." This is recorded in Acts 1:11. And finally in the last book of the Bible, we find John exclaiming, "Behold, he cometh with clouds; and every eye shall see him, and they also which pierced him: And all kindreds of the earth shall wall because of him. Even so, amen."

When Will It Take Place?

This doctrine has been brought into disrepute because many have assumed to fix dates for the coming of our Lord, notwithstanding that the Bible warns against it. Jesus himself said to his disciples: "Watch, therefore, for ye know not what hour your Lord doth come." There are some who think that a millennium of peace and prosperity will be experienced on the earth before the Lord comes.

There is also one other fact that seems to preclude the expectation of a millennium before Jesus comes; that is, what the New Testament teaches as to the moral and spiritual conditions in the world at the end of this age. We are all familiar with the teaching of Paul in his second epistle to Timothy at the third chapter, where he says that "in the last days perilous times shall come." He then goes on to define what he means by that, adding that "men shall be lovers of self, lovers of money, boastful, haughty, railers, disobedient to parents, unthankful, unholly, without natural affection, truce-breakers, slanderers, without self-control, fierce, no lovers of good, traitors, high-strung, high-minded, lovers of pleasure rather than lovers of God; having a form of godliness but denying the power thereof."

All this does not look like a millennium, and yet how much it looks like the times in which we are now living! Can it be therefore that the coming of the Lord may be nearer than most of us expect?

Results of His Coming.

In the light of the second coming there are three classes of men to be considered, which are defined in First Corinthians at the 10th chapter—as the Jew, the Gentile, and the church of God. To begin with the last-named, the coming of Christ will mean the translation of the church to meet him in the air, according to First Thessalonians 4:13-18. It would seem to be after this translation that Christ comes with his saints and his holy angels to the earth, as indicated in the Scriptures previously referred to. This coming is for judgment on the Gentile nations which "know not God and obey not the gospel of our Lord Jesus Christ."

Bringing the Truth Home.

This hope of the second coming of Christ is the great motive for holy living. Where it really takes hold of the hearts of Christian believers it restrains them from known sin as nothing else does.

It is also the great comfort in disappointment and trial, for our Lord said that when he came again in the glory of his father he would bring his reward with him. Hence what stimulus to holy endeavor in the face of difficulties and discouragements, for—

No word he hath spoken
Was ever yet broken.

Finally, how the thought of his coming should move men to repentance and faith in his name! O, those solemn words which Paul spoke to the unbelievers and mockers in Athens: "God now commandeth all men everywhere to repent; because he hath appointed a day in the which he will judge the world in righteousness by that man whom he hath ordained, whereof he hath given assurance unto all men in that he hath raised him from the dead."



Excellent Beef Specimens.

crop and devoting two-thirds of his time to doing it. Farming is a business and requires all of our energies intelligently directed.

Interesting Experiments.

Among hundreds of experiments conducted in the past 25 years with different cropping systems one of them carried on for a period of 17 years by the Missouri agricultural college stands out as a striking example of the influence we have upon the soil, to improve it, or exhaust it as we choose.

Live Stock and Legumes.

For 17 years three systems of farming were practiced on three plots of ground.

On plot one a system of live-stock farming was practiced; that is, corn, wheat and clover were grown in rotation with grain crops, the crops fed to live stock and the manure returned to the land.

On plot two a simple rotation of corn, wheat and clover was followed and the crops harvested and sold off the farm.

On plot three corn was grown every year for 17 years, and every crop harvested and removed from the land. On this plot the yield was reduced in the last year of the experiment to 11.8 bushels per acre.

Where the land had simply been rotated to corn, wheat, and clover, the yield was 50.7 bushels per acre, and where manure was added in a corn, wheat and clover rotation, the yield was 77.6 bushels per acre.

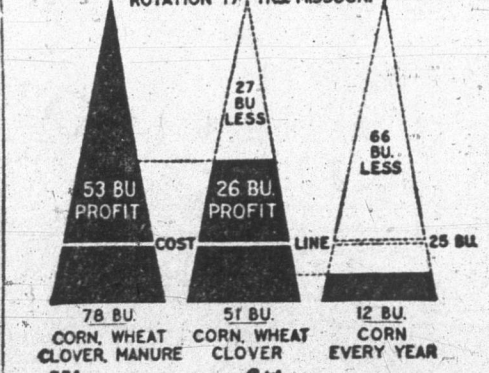
No more striking results of the effect of crop rotation could be found and there is little doubt that the most important cause of this increased yield is in the fact that the humus

clover, corn, oats and other crops when sold on the market take away fertility which will never return to your soil.

The accompanying chart shows the fertility contained in alfalfa, clover, corn and oats in comparison with milk, beef, pork and butter.

When you grow three tons of alfalfa, about the average acre yield, and sell it, you rob your soil to the amount of about \$28. When you market 50 bushels of corn you lose about \$15 in fertility—value; but if you feed the corn and alfalfa to a steer or a hog or a dairy cow, 70 to 80 per cent of the fertility will be returned to you in manure and go back to the land if you save the manure. For every 400 pounds of beef shipped away the loss will be about \$1.00; 600 pounds of pork about \$1.87; 100

LIVE STOCK AND LEGUMES THE BASIS OF PERMANENT AGRICULTURE



pounds of butter about 4 cents. Market your crops through live stock, and you will make more money from your farming operations. Build up your soil and make your farm worth more.