

INTENSIVE HAY RAISING IS PROFITABLE



Mowing Cowpea and Millet Hay—Two and One-Half Tons Per Acre.

(By J. M. BELL.)

The following experiments in raising forage crops, on an intensive plan, show most conclusively that if land is heavily manured and the crops put in as they should be that the yields will be at least 100 per cent more per acre than the ordinary farmer receives.

Mr. N. J. Crull, a well-known livestockman of Richmond, but formerly a successful farmer in the state of Pennsylvania, and later on in Virginia, owns an 11-acre farm near Richmond, which when purchased a few years ago in a low state of fertility, although the land was naturally good. Only forage crops have been raised, and the writer will briefly tell of those which he has seen growing, harvested and estimated.

Beginning with an oat hay crop, sown a year ago last September and harvested in June: I saw this crop as a two-horse tedder was stirring it up and it was the first time in my life (20 years of farming) that I ever saw a growth of oat hay of such rank growth that a tedder could not stir up the mown crop from top to bottom. From this plot of 6 acres 15 very large wagonloads of hay were harvested. The hay was perfectly cured and a ton per load was a most conservative estimate.

The hay at that time would easily have brought \$20 per ton on the Richmond market, which gives \$300 worth of hay from 6 acres. The cost was as follows, the figures being accurate. Cost of manure at 15 loads per acre, a total of 90 loads, value \$1 per load, \$90; cost of plowing, \$16; cost of harrowing, rolling, disking and seeding, \$16; cost of harvesting, \$15; cost of 12 bushels of seed at 60 cents per bushel, \$7.20; total expense, \$144.20; profit on crop, \$155.80.

As soon as the oats were off the ground, the six acres were plowed, prepared and seeded to German millet and cowpeas, at the rate of 8 bushels of peas and 3 pecks of millet per acre.

Before the crop was sown, an application of a little over 300 pounds of acid phosphate per acre was used, or in other words, 1 ton put on the 6 acres.

When this crop was harvested, hay was very high on the Richmond market and \$25 per ton is a conservative value to place on the beautifully cured millet and pea crop, which made a splendid mixed hay. The yield was 15 tons, which, valued at \$25 per ton, totals \$375. Cost of crop as follows: Plowing, \$16; harrowing, rolling, disking and seeding, \$16; harvesting \$16; 1 ton acid phosphate, \$16; 6 bushels of cowpeas, \$12; 4½ bushels of millet, \$7.87. Total cost of crop, \$82.97½. Profit, \$292.02½.

Another five acres were sown in cowpeas and millet about two weeks earlier. This crop followed out stubble from a crop sowed the previous September, but owing to the fact that it was constantly grazed, the value of the hay crop was so materially lessened that no account was kept of the light yield. However, the amount of grazing value of the oats was of great value to the owner.

This crop of oats had been top-dressed during the late fall with manure at the rate of 15 spreader loads per acre (in fact all manure used on any crop was applied with spreader). The land was plowed, and there was considerable growth of oats, as well as manure, turned under. The writer saw this crop as it was being mowed, and it could not be excelled either for growth or quality.

The crop was estimated at 3 tons per acre, by many practical farmers who saw the crop at harvest time, but at the lowest, the yield was 2½ tons per acre, making 15 tons, which at time of harvesting was worth \$25 per ton, or \$375. Cost of crop: Plowing, \$13.50; disking, rolling, harrowing and seeding, \$14; harvesting, \$14; cowpeas, \$10; millet, \$6.56. Cost of 75 loads of manure at \$1 per load, \$75, but it seems that at least half of this amount should be charged to the oat crop sown the previous fall. Allowing this way, the cowpea and millet crop will be charged with \$37.50 manure account. The total cost of this other pea and millet crop follows: \$91.50½ profit, \$283.44.

Last fall the whole farm of 11 acres was sown in wheat and German or crimson clover, to be cut for hay in the late spring. The methods were carried out in this manner: An application of 1 ton of acid phosphate was applied on 6 acres, then the land was seeded with wheat at the rate of 1 bushel per acre and at the same time clover seed at the rate of 1 peck per acre.

The 5-acre plot (after plowing) had ground limestone at the rate of 6 tons per acre spread over it. This limestone was secured from the state

plant, and it was tried as an experiment inasmuch as the soil was more or less full of humus from heavy applications of stable manure, and with the consecutive turning in of vegetation following the cutting of forage crops, such as young weeds, oat and pea-vine stubble and the like.

On this 5-acre plot, stable manure at the rate of 15 loads per acre were spread late in the fall on the growing crop of wheat and clover. The cost of seeding the 5-acre plot was: Plowing, \$16; disking, rolling, harrowing and seeding, \$14; one carload of ground limestone, spread, \$66; seed wheat, \$5.25; clover seed, \$7.50. The total expenses of seeding the 11-acre farm last fall were as follows, and given as a whole, including the harvesting of the hay crop, \$273.05.

Estimating the 11-acre crop of mixed wheat and clover at 2 tons per acre (a most conservative figure), Mr. Crull will get 22 tons of feed that will be worth at the lowest, \$20 per ton, \$440. Deducting expenses, there is left a profit of \$167.05. With this fact to be taken into consideration, that his land is improving in value each year, both from the standpoint of fertility and also from the fact that its proximity to a growing city enhances its value in that respect. But the idea is this—intensity your operations, use more manure, humus, fertilizer, fight shy of big, poor surfaces, from which no profits attend. Mr. Crull's work teaches a profitable lesson.

GRUBS EAT THE STRAWBERRY

Growers Who Have Trouble With Them Should Be Careful in Selecting Land for Plants.

Strawberry growers who are troubled with white grub worms should be careful in selecting the land upon which the plants are to be set. Sod land, according to J. R. Watson, entomologist to the University of Florida experiment station, is apt to be infested with the worms. He advises that the land be given to some crop not injured by the grubs, for two or three years after the sod is turned under. If the grower cannot wait that long he might pasture pigs on the land six months before planting. Pigs root the grubs out and eat them.

If stable or barnyard manure is used as fertilizer, it might be well to mix with it from 200 to 400 pounds of cyanamide to the acre. It is possible that cyanamide cannot be obtained. About 100 pounds of sulphur or enough to slightly color the manure might be added. The sulphur can be applied between the rows.

Neither of these substances will kill the grubs, but they act as repellents, and will probably drive the grubs away. The best method, however, is to avoid sod lands.

Care for fattening lambs. Worth While to Remember That Feed Lot Should Be Kept Free From Other Animals.

Many people are of the opinion that a sheep is nothing but a scavenger that needs little attention, but it will be found that the more care and attention the lambs receive the greater the profits will be. Among the items of good care in fattening lambs the following are worth remembering: The feed lot should be kept free from other animals. Lambs should be fed with regularity. Quiet in the feed lot is important. Feed troughs should be kept as clean as possible. Salt is necessary and should be before them at all times in a separate trough. Lambs do not need much shelter, but a good windbreak is necessary and an open shed whereby their coats and feet can be kept dry gives the best results.

BREEDING HORSES FOR FARM

Don't Neglect to Give Attention to Temperament of Sires and Dams—Avoid Bad Qualities.

While breeding for size and uniformity of farm horses, don't neglect to give proper attention to the temperament of the sires and dams. Undesirable qualities in this respect are just as much to be avoided as those for undersize and ill shape.

Keep Farm Tools Sharp. It saves horse feed and horse strength. It does better work, more of it in a day, and pays a better profit. It saves time, temper, and human vitality. A good emery stone will pay for itself in one season—get one and keep the tools sharp.

DAIRY

CARE OF CREAM IN SUMMER

Few Simple Rules Given Which Should Be Followed—Dirt Always Carries Bad Flavors.

(By W. B. COMBS, Missouri College of Agriculture.)

During the hot days of summer the farmer who is selling cream to the creamery finds it a problem to keep his cream in the proper condition. However, there are but a few simple rules which should be followed, that would result in better cream. First of all these is cleanliness. Dirt, remember, carries bad flavors. If the barn or its surroundings and cows are dirty it will result in poor milk; poor milk results in poor cream; poor cream results in poor butter.

Immediately after separating, the cream should be cooled down to at least 50 degrees Fahrenheit. Warm cream should never be poured upon cold as the temperature of the lot is raised and bad flavors may result. It is essential that the cream be stirred frequently to insure uniform ripening. If the cream is left undisturbed, the fat rises the same way as it does in milk. As a result the cream is full of curd particles or it becomes "lumpy."

Never put cream in a rusty or battered can and always remember that milk and cream have that property of absorbing bad flavors.

CAREFUL ATTENTION TO COW

Animal Brings In Regular Returns in Dairy Products—No Farmer Can Afford to Neglect Her.

Cows require regular and careful attention. There is work in keeping cows and giving them proper attention. But they bring in regular returns in dairy products and cash and no farmer can afford to neglect cows.

What would it mean to individual farmers and the country if every home had as many cows as it requires to supply the table with milk and butter? Perhaps none of us realize what it would mean. It would certainly give more cash from the animals and crops



Head of a Purebred Jersey.

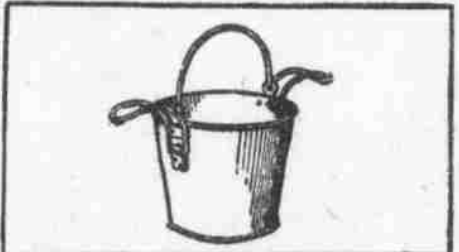
raised and be the means of greater profits.

Doubtless it would mean more than this. It would give more wholesome, nutritious foods and enable parents to rear healthier, stronger, more efficient children. Isn't this worth striving for?

DEVICES SUPPORT MILK PAIL

Curved Side Arms, Resting on Knees of Milker, Keep Receptacle in Its Proper Place.

The curved side arms of this pail, when in use, rest on the knees of the milker and help support the pail. When not in use they are folded down out of the way or are removed entirely



Supports for Milk Pail.

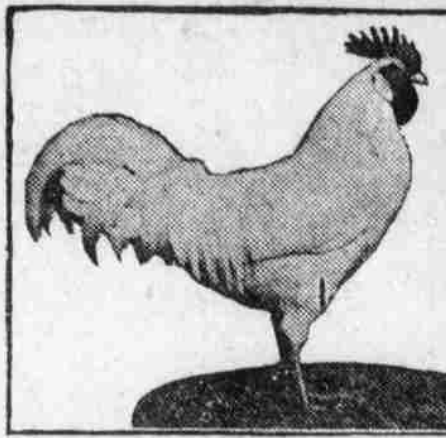
by simply springing them out of their bearings. It is claimed that these arms are simpler than similar devices previously patented.—Wisconsin Agriculturist.

FEEDING SILAGE IN SUMMER

Farmer Must Decide for Himself Whether Practice Is Cheaper Than Letting Cows on Pasture.

Every farmer must decide for himself whether it is cheaper or more profitable to feed silage during the summer or let the cows get most of their feed from the pastures. If you have land suitable for no other purpose than raising grass it would not pay to let it lie idle, but if your farm consists largely of tillable land the situation is quite different. It costs time and money to raise corn and put it in the silo and feed it out, but on many farms it will pay to rely mainly on the summer silo for the dairy herd.

HOW HIGH PRODUCERS MAY BE SELECTED



White Leghorn Cockerel and Flock of Pullets.

It is not only possible but desirable to pick out the high-producing hens in the flock by means of external characteristics, according to W. A. Lippincott, professor of poultry husbandry in the Kansas State agricultural college.

"Hens that molt late are high producers," says Professor Lippincott, "because they have a longer period in which to lay. Late molting is the accompaniment of late laying, but the mere fact of late molting does not make high producers. The hens that molt late begin laying as early as the early molters, because they molt much more rapidly and lose less time."

"In the yellow-skinned breeds the paleness of shank is a very reliable indication in the fall at the end of the first year. The high producers lay the color out of their shanks, and so any bird with yellow shanks after a year of laying has been a poor producer for that year."

"Those birds with soft and pliable combs about October 1 are in general better producers than those with hard and dried-up combs. As a bird molts the comb tends to shrink and become

hard, but birds in good condition and laying have pliable combs.

"With the White Leghorn pullets which have yellow pigment in the earlobe at the start of the season a white earlobe will be an indication of high production. These birds with yellow pigment in the earlobe will lay out this color until the lobes are white."

"The smoothness, pliability and oiliness of the skin are indications of egg production. A laying bird has a softer, smoother feeling than the non-laying bird."

"Due to the yolks developing in the ovary and the increase in size of the oviduct, the abdomen swells out in preparation for the laying season. When a bird gets ready to stop laying the abdomen shrinks. This fact is valuable in telling what the bird may do for the next two or three weeks, or by knowing whether the bird is laying at a certain time of the year."

"The practical application of these facts is to discard at the end of a laying year all pullets which have yellow shanks, dried-up combs and shrunken abdomens."

DEVELOPMENT OF THE CHICK

Egg Furnishes Feed, Water and Other Necessary Essentials—Heat Causes Incubation.

Each egg produced by good, vigorous hens running with a strong rooster and housed and fed under proper conditions is the possibility of another chick. In the egg is a home and it contains feed, water and all that is necessary for the development of the chick, except heat. It is the application of this heat under favorable conditions that is called incubation. At the time the egg is laid the development of the chick has been going on rapidly for several hours. As soon as the temperature drops down below 70 degrees F. this growth stops and the embryo goes into a resting stage until the egg is again warmed up. This very young chick, called the blastoderm, rests on the upper surface of the yolk.

Immediately surrounding the yolk extending out at opposite sides toward the large and small ends of the egg is a dense opaque layer of albumin or white called chalazas which tends to support the yolk and lessens its movement, except as it revolves on the chalazas as an axis to keep the blastoderm at the top. The rest of the white is more watery and more transparent and is surrounded by two rather tough membranes and the shell. These two membranes separate at the large end of the egg and form the air cell which in a fresh egg is about the size of a dime, but increases with age due to evaporation of moisture. The shell being porous permits the passage of air or moisture in or out.

CLEAN THE CHICKEN BROODER

Give Chicks Good Start by Disinfecting Before Placing Them in It—Use Hot Water.

Give the chicks a good start by cleaning and disinfecting the brooder before they are placed in it. The Pennsylvania State college experiment station recommends scrubbing with hot water or the use of a 3 to 5 per cent solution of any of the coal tar or other commercial disinfectants. Have the brooder dry before the chicks are introduced into it. Cleaning the brooder once a week during the brooding period is a good practice.

MACHINE-HATCHING IN FAVOR

Forceful Argument Is Number of Eggs Broken and Spoiled by Hens—Average Is Large.

A forceful argument in favor of machine-hatching is the number of eggs broken and spoiled by sitting hens. Even under the most satisfactory hen-hatching conditions the breakage will often average 15 to 30 per cent of the eggs set. Other eggs are smeared when not broken and the chicks lack air to develop sufficient vigor to break the shell.

WASTE OF TIME TO DOCTOR

Attention to Details, Constant Watchfulness and Careful Feeding Are of Great Importance.

Successful poultrymen spend much time in trying to prevent disease. Attention to details, constant watchfulness and careful feeding play the most important part in the everyday life of the prominent breeder. So much time is given, therefore, to prevention that it is considered a waste of time to doctor when disease appears.

RANGE FOR YOUNG CHICKENS

Problem of Supply Green Feed Does Not Receive Sufficient Attention From Farmer.

The problem of supplying a range or green feed for chicks does not receive sufficient attention. This is an important side of the proper rearing of poultry and the farmer who has sour skim milk to spare and a good green range has more than half his chick problem solved.

For temporary feeding, one can soak oats overnight in water, wash them thoroughly next morning and spread them in half-inch layers in boxes or trays. Place these trays in the shade outdoors and sprinkle with water twice daily. In from three to six days the oats will be ready for feeding. For baby chicks feed when the sprouts are one-half inch long, giving once daily what the chicks will eat in about ten minutes.

Rape may be sown and, when grown, cut up and fed to chicks. Cabbage, lettuce, mangels, beets, turnips can also be used for green feed.

The only really satisfactory way, however, to supply green feed and a good range is to sod a piece of land to Bermuda grass by plowing the ground and dropping a piece of Bermuda sod every 13 inches, and to put some burr clover into this Bermuda grass in the fall.

FEED PENS FOR BABY CHICKS

Wire Covered Yard of Laths, Placed Close Enough to Keep Old Fowls Out, Will Suffice.

If old and young chicks are allowed to range together, feeding pens should be made for the baby chicks. A wire covered yard of laths, placed far enough apart to permit the chicks to get between, and wide enough so that the older birds cannot reach their heads in to feed, is cheaply and easily made. A box deep enough to prevent the old birds reaching in, with a wire fence in front, will protect the feed hoppers from the weather. In such hoppers, keep a dry mash of ground grains, charcoal, cracked bone and grit. The hoppers should not furnish the only food; cracked corn scattered in the litter makes a good exerciser.

FEED SHOULD BE NUTRITIOUS

Good Practice to Throw Limited Amount of Rolled Oats on Floor for Chicks to Clean Up.

A good first feed is to throw a limited amount of rolled oats on the floor, only the amount that the chicks will clean up in about one hour. Rolled oats are very nutritious and relished by the chicks and are excellent as a first feed. However, their continued use is not advised. Hard boiled eggs, ground in a food chopper and mixed with dry crumbs may also be successfully used as a first feed.

FIRST FEED FOR THE CHICKS

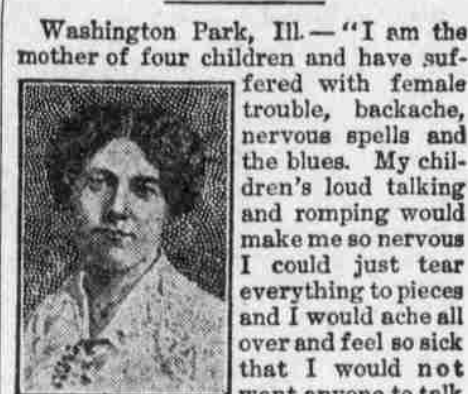
Dry Mash Mixture Given Until Fowls Are Six Weeks Old, Fed in Self-Feeding Hoppers.

Dry mash, which is fed until chicks are six weeks old in shallow boxes or self-feeding hoppers, is compounded as follows:

Five pounds blood meal, three pounds charcoal, twenty pounds middlings, twenty-two pounds cornmeal, twenty-two pounds buckwheat meal, twenty-three pounds oatmeal, five pounds fine bone meal.

I OWE MY HEALTH

To Lydia E. Pinkham's Vegetable Compound.



Washington Park, Ill.—"I am the mother of four children and have suffered with female trouble, backache, nervous spells and the blues. My children's loud talking and romping would make me so nervous I could just tear everything to pieces and I would ache all over and feel so sick that I would not want anyone to talk to me at times. Lydia E. Pinkham's Vegetable Compound and Liver Pills restored me to health and I want to thank you for the good they have done me. I have had quite a bit of trouble and worry but it does not affect my youthful looks. My friends say 'Why do you look so young and well?' I owe it all to the Lydia E. Pinkham remedies."

—Mrs. ROBT. STOPIEL, Moore Avenue, Washington Park, Illinois.

We wish every woman who suffers from female troubles, nervousness, backache or the blues could see the letters written by women made well by Lydia E. Pinkham's Vegetable Compound.

If you have any symptom about which you would like to know write to the Lydia E. Pinkham Medicine Co., Lynn, Mass., for helpful advice given free of charge.

Many a girl deludes herself with the belief that she has completed her education before she marries.

FOR BABY RASHES

Cuticura Soap Is Best Because So Soothing and Cooling. Trial Free.

If baby is troubled with rashes, eczemas, itchings, chafings or hot, irritated skin follow Cuticura Soap bath with light application of Cuticura Ointment to the affected part. Nothing so soothing, cooling and refreshing when he is fretful and sleepless.

Free sample each by mail with Book. Address postcard, Cuticura, Dept. L, Boston. Sold everywhere.—Adv.

Activities of Women. Over 6,000 women marched in the Boston preparedness parade.

Queen Wilhelmina of Holland is the only woman who is a reigning sovereign.

There are between 3,000,000 and 4,000,000 woman voters in the United States.

To wed a man she never saw, Viola Kleckner recently left Sanbury, Pa., on a 7,000-mile trip to Seward, Alaska, where she will become the wife of James M. Foley, a mining engineer.

It cost the suffragists of the country over \$60,000 to get a suffrage plank in the Republican and Progressive party platforms.

Empress Augusta Victoria of Germany visits the hospitals every week to console the wounded soldiers of her country.

Token of Esteem.

Moriarty—Th' boys want to buy a lovin' cup for Assemblyman Flannigan. Jeweler—Here is something very choice for \$10.

Moriarty—I don't think Flannigan would go as high as that—but we'll ask him!—Harrisburg Patriot.

Human Nature.

"Why that hospital is so popular beats me. It hasn't the best system, and it certainly hasn't the most successful doctors."

"But it has the prettiest nurses."

Adds a Healthful Zest to any Meal

Most everyone likes a hot table drink, but it must have a snappy taste and at the same time be healthful. Probably no beverage answers every requirement so completely as does

POSTUM

This famous pure food-drink, made of roasted wheat and a bit of wholesome molasses, affords a rich Java-like flavor, yet contains no harmful element.

The original Postum Cereal must be boiled; Instant Postum is made in the cup "quick as a wink," by adding hot water, and stirring.

Both forms of Postum have a delightful aroma and flavor, are healthful, and good for children and grown-ups.

"There's a Reason"

Sold by Grocers everywhere.