

ON THE FARM AND GARDEN

COW MOST VALUABLE WHEN 3 YEARS OLD

DEPARTMENT OF AGRICULTURE GATHERS ESTIMATES OF 1800 DAIRYMEN.

According to estimates made by more than 1,800 dairymen and breeders, the dairy cow reaches her highest value when between five and six years of age. These estimates have been used as the basis of a study on the influence of age on the value of dairy cows, just published as department bulletin No. 413, by J. C. McIlwain. The figures were obtained from well-informed farmers throughout the principal dairy districts of the country, and the average may be taken as fairly representative of relative values of cows at different ages.

Estimates were obtained for four of the leading dairy breeds, (Holstein, Guernsey, Jersey, and Ayrshire) and for four classes of three-year-olds of each breed, namely, the \$50 grade cow, the \$100 grade, the \$200 pure bred, and the \$300 pure bred. Working from this series of arbitrary values, estimates covering values from birth to 14 years of age were obtained. For example, it was found that the farmers estimated that a grade Holstein worth \$50 at three years of age was worth \$10 at birth, \$101 at six years of age, and \$46 at 14. In the case of the pure bred the estimated advance in value up to five or six years of age is relatively sharper and the decline thereafter correspondingly abrupt. Thus the \$300 purebred Jersey is estimated to be worth \$59 at birth, \$351 at six years, and but \$74 at 14.

WASTE IN SPRAY COSTS.

A needless expenditure of about \$40,000 annually for spraying material in the state of Oregon is indicated in a series of spray efficiency tests being conducted by the entomological department of the agricultural college. The tests are to determine the required strength of arsenical sprays and also to determine the efficiency of less expensive spray materials. In determining the insecticidal value, colonies of approximately 1000 tent caterpillars are used on numerous groups of plants that have been sprayed with arsenical sprays and others, of various degrees of strength. As the caterpillars die they drop from the foliage. Each day the dead caterpillars are collected and counted and the number recorded and compared with the number killed by sprays of known standard value. It is believed that when the results of these experiments are published it will not only effect a great saving to growers but will also encourage spray manufacturers to maintain a high degree of excellence in their products.

SCREEN RADISH BEDS AGAINST MAGGOT PESTS

The small white maggot in radishes prepared for the table spoils the pleasure of eating this vegetable. The most satisfactory way to control these pests, especially in radish beds, is to

screen the beds to prevent the entrance of the flies that deposit eggs. The expense of screening is very slight and the satisfaction of knowing that the radishes are free from maggots warrants the extra trouble. A frame of ten or twelve-inch boards should be built around the borders of the bed, a few strands of wire stretched across the top to hold up the covering and then ordinary cheese cloth or mosquito netting stretched across the top to keep out the flies. Cabbage beds may be similarly protected.

Soon after being set into the field young cabbage plants are often injured in the same way. The injured plants become a sickly blue in color and soon die. In fact all members of the cruciferae family are likely to be attacked, and the injury particularly in a backward season, such as the present, is sometimes quite severe.

PRUNE LEAF SPOT CONTROL.

Three applications of Bordeaux mixture 4-50, or atomic sulphur, 5 lbs. to 100 gallons, were found effective in controlling leaf spot disease of prunes in experiments recently conducted by the Plant Pathology department of the O. A. C. experiment station. The dates of the spraying this year were May 1, just as the last blossoms were dropping, June 2 and June 28. The use of a sticker with the Bordeaux mixture was found to add greatly to the spreading power of the spray. The leaf spot disease, says Prof. Bars, head of the department, is caused by a fungus and is responsible for the serious, widespread yellowing and drooping of the foliage in Willamette valley prune orchards this year and last. It reduces the vitality of the tree, probably resulting in greater damage than has been suspected heretofore.

GLUTEN IN PIG FEED.

Wheat of average gluten content fed to pigs produced a gain of 94.5 pounds in the same that wheat of low gluten content produced a gain of 83.5 pounds in a feeding experiment at the eastern Oregon branch experiment station at Union. By figuring the feed at \$1.00 per bushel and the price of pork at 8 1/2 cents (which was actually one cent less than it sold for on the Portland market) the gain per pig on average gluten wheat was \$1.30, and on the low gluten content, 95c. This was a difference of 37c, represented by an increase of 11 pounds per pig. The wheat with the average gluten content showed 29 per cent gluten, and that with the low content, 4 per cent gluten. "It is a well known fact that low gluten wheat will not make satisfactory flour," says Robert Withycombe, superintendent of the experiment station, "and the above results show its value as a hog feed."

Rid Your Child of Worms.

Thousands of children have worms that sap their vitality and make them listless and irritable. Kickapoo Worm Killer kills and removes the worms and has a tonic effect on the system. Does your child eat spasmodically? Cry out in sleep or grind its teeth? These are symptoms of worms and you should find relief for them at once. Kickapoo Worm Killer is a pleasant remedy. At your druggist, 25c.

HOGS USED TO CHECK BROWN ROT IN PRUNES

HOGGING OFF DISEASED FRUIT REDUCES INFLECTION IN FOLLOWING YEARS.

Hogs turned into the prune orchard in sufficient numbers to consume the rotting prunes that cover the ground will not only eat the prune crop refuse but will at the same time destroy one of the most prolific sources of infection of prune brown rot.

"As soon as prunes are harvested turn hogs into the orchards and let them consume the rotted prunes that cover the ground," says H. P. Bars of the O. A. C. experiment station. "If enough hogs are used to clean up the orchard thoroughly there will result considerable benefit in reducing the sources of brown rot infection in the orchard the second spring following."

"If prunes that are infected with brown rot are allowed to remain on the soil or in the upper layers they will in about eighteen months produce a crop of fruiting bodies that push their way to the top of the ground and discharge millions of spores into the air of the orchard, thus starting the disease by infecting the developing fruit."

"Destruction of the decayed prunes by means of hogs is the only practical method that has ever been suggested for the removal of this extremely important source of infection. Do not look for benefit the first year after the practice is begun, as the source of next season's prune rot infection has been in the ground since last prune harvest."

"This method is not a 'cure-all' but it will help. Experiments conducted by the station this season demonstrate that spraying with bordeaux mixture greatly reduces this disease and also the coccomyces leaf spot trouble which has caused such serious defoliation in some prune sections this season."

A Clogged System Must Be Cleared.

You will find Dr. King's New Life Pills a gentle yet effective laxative for removing impurities from the system. Accumulated waste poisons the blood, dizziness, biliousness and pimples, muddy complexion are the distressing effects. A dose of Dr. King's New Life Pills to-night will assure you a free, full bowel movement in the morning. At your druggist, 25c. Adv.

Changing Seasons Bring Colds.

"Stuffed-up head," clogged-up nose, tight chest, sore throat are sure signs of cold, and Dr. King's New Discovery is sure relief. A dose of this combination of antiseptic balsams soothes the irritated membrane, clears the head, loosens the phlegm, you breathe easier and realize your cold is broken up. Treat a cold persistently; half way measures leave a lingering cough. Take Dr. King's New Discovery until your cold is gone. For 47 years the favorite remedy for young and old. At your druggist, 50c. Adv.

MAKING WORN-OUT TOBACCO LANDS PRODUCE MOST PROFITABLE CROPS

Maryland Farm of 164 Acres of Rolling Land Made Fertile by Intelligent Care and Use of Lime, Acid Phosphate, Legumes and Live Stock—Larger Part of Crops Grown are Fed to Farm Animals—Rotation of Crops is Practiced.

(By G. H. ALFORD, State Demonstration Agent, Maryland.)

J. C. Greenwell of St. Mary's county, Maryland, is making good soil out of poor and making money at the same time. Because of the work of restoring the worn, gullied lands is a fundamental process in remaking the tobacco districts, and because Mr. Greenwell has done such notable work along this line, I thought it worth while to pay his farm a visit.

There are few farms which would more richly reward a farmer for a visit. One hundred and sixty-four acres of rolling land and every acre showing the effect of intelligent and loving care. On all this farm there are not more than ten acres that have not been made fertile by lime, acid phosphate, legumes and live stock. Few gullies have not been reached, but there are broad acres where clovers and grasses grow luxuriantly, which still bear evidence of the time when they were marred by gullies.

Simple, Essential Process.

How is he making the soil more productive and adding to his bank account every year? By the simple, but essential process of lime, phosphorus, legumes and live stock. He grows crops to enrich his soil on a large part of his farm and feeds the larger part of all crops grown to good live stock. The gullies were filled with the plow and scraped and plowed over, of course, but the real work of reclamation was done by the crops which were plowed under or fed to live stock and the manure spread on the poorest

Mr. Greenwell grows practically all of the feed and food consumed on his farm. He does not send money to other sections of the country to pay for corn, hay, bacon, lard, canned goods, mules and horses and other farm products. He stays out of debt and it is not necessary for him to dump his farm products on the market when prices are low.

There is a large fertile garden just back of the dwelling. The soil is very fertile and plants are grown practically every month in the year. As soon as one crop is harvested, another kind of vegetable adapted to the season is planted in its place. In cases where a vegetable occupies the soil for a considerable time, the succeeding crop is planted between the rows, or even between the plants in the rows.

He not only fully realizes the value of a systematic rotation of crops, but he also knows the great importance of a rotation in the garden and the keeping of a supply of fresh vegetables all the year round. The average farmer gives little attention to the garden and on many farms if the mother fails to look after the garden, few vegetables are grown.

Utilizes Advantages.

He is fully aware of the numerous advantages his section has for the economical growing of live stock. He utilizes the many advantages to the fullest extent. The land is comparatively cheap and for this reason he depends largely upon grazing for the necessary feed for all live stock. He has excellent pastures of clovers and



Greenwell Farm Dwelling.

spots with a manure spreader. Cowpeas, soy beans, crimson clover, red clover and alfalfa have all been grown; even a growth of weeds is considered helpful. Mr. Greenwell says that the main trouble with the worn-out tobacco lands is lack of humus. He grows legumes to fill his soil full of humus and nitrogen and to furnish valuable feed.

The policy of furnishing the soil an abundance of vegetable matter is pursued on every part of the farm. Such crops as the clovers, tobacco, corn and wheat are grown in the rotation. Crimson clover is always planted in the tobacco and corn at the last working. The idea of keeping the soil full of decaying vegetable matter is always kept in mind, and the rough feeds are almost entirely consumed by live stock, the manure going onto the poorest spots. It is this policy of persistent soil feeding that has increased the productivity of this farm until it yields an average of more than 2,000 pounds of tobacco, two tons of hay, 45 bushels of corn and 30 bushels of wheat.

Followed Sane Plan.

This is the great big lesson to learn from this farm. Mr. Greenwell realized that the most intelligent farmer will fall on poor land unless he builds it up, and set out to make his soil very productive. He did not attempt to do this by the extravagant use of commercial fertilizers. He followed the sure, sane and economical method of good plowing, phosphorus, lime, legumes and live stock.

Of course he believes in commercial

orchard and rye grass. The clovers, alfalfa, vetch, rape, wheat and other crops furnish good grazing for about ten months in normal years. During six months of the year the pastures afford all the grass his animals consume and part of this feed for four additional months. The feed for the balance of the grazing period is furnished by supplementary crops produced on other portions of the farm.

Purebred Duroc Jersey hogs are kept on this farm. The pigs are sold for breeding purposes and used for pork and lard. Permanent pastures, grazing crops and about one-fourth pound of corn per hundred pounds of hog per day keeps the hogs in the best possible condition.

The poultry department supplies eggs, chickens and turkeys for home use and to sell. The turkeys contribute their share of the profits, but chickens are considered the best money makers. Mites and lice are kept off the chickens, clean, well-ventilated houses furnished and plenty of good feed supplied.

Several good milk cows are kept on the farm to furnish milk, cream and butter for the family. Good pastures, clover hay and cottonseed meal are fed to the cows. The manure is carefully saved and applied to the poorest spots.

Home Made Beautiful.

His home is the most highly valued of all his possessions. It is his and his loved ones' castle. It shelters those he loves most and is to him the dearest spot on earth. It is not luxuriously furnished, but comfortable fur-



Oats in Shock in July.

fertilizers, but he is not afflicted with the notion that land can be profitably or permanently built up with commercial fertilizers if the life of the soil—a supply of decaying vegetable matter—is lacking. His success as a soil builder appeals to me. It would appeal to anyone who could see as I saw the beautiful stretches of tobacco and pea meadows, the splendid reaches of corn and the broad wheat fields.

washings neatly kept in order make it attractive to his inmates. The boys and girls on this farm will be impressed in early youth with high ideals of rural life and will most likely be contented to live on the farm rather than cultivate desires for the mere surface attractions of the town or city.

The flowers, neatly kept yards and fences always maintained in proper order are all that is needed to make this

a beautiful home. The paint brush—the dwelling and the whitewash brush applied to the fences and outbuildings as often as required not only preserve the buildings from decay, but add greatly to the attractiveness of the entire home.

A perfect lawn with trees and shrubs add greatly to the beauty of the place. He chose the free and natural style as he loves nature's way of doing things. High priced labor makes it imperative for him to use labor-saving implements and strong teams. This is one of the main reasons why he makes money farming. The strong teams and labor-saving implements lift him above the routine of endless drudgery. It conserves his energy, his health and his life. It gives him an opportunity to enjoy life. He uses his brain more and his hands less.

He shelters his farm implements when not in use. His mower, binder,



Pigs in Rape.

hay press, cultivators, grain drills and plows are not left out in the weather. The tools are cleaned and oiled at the end of the season.

His horses have properly fitting harness that is kept in good condition. The harness is kept soft and pliable and the horses' shoulders are never bruised.

I have seen few money-making farms anywhere as neat, as thrifty and as progressive looking as this one. The neat home, good barn, tool shed and all tools in their places, good stock, fine fields of tobacco, corn and wheat, grass fields and sure enough fields, not little patches, of cowpeas. The peas, clover and grass fields explain how these poor lands were made good and gives promise of even better things for the future.

Northern Farmers Coming.

Many northern farmers are coming into this country and doing good farming, but Mr. Greenwell is native born. His work proves two things—first, that to be able to do as good farming as anyone, tobacco farmers need only to get to reading and studying about their work; and, secondly, there are few worn-out tobacco soils, even those naturally thin, which cannot, by proper handling, be made to produce profitable crops. Thriving tobacco, corn, peas and other crops where once red galls show what can be done by the man who looks ahead and who cares for his soil.

The East needs more than anything else men who will set themselves patiently and determinedly to the task of rebuilding rural life, of making the waste fields fertile, of establishing attractive and comfortable farm homes, of taking the lead in the development



In the Cowpea Field.

and direction of a spirit of progress on the part of their fellowmen. Mr. Greenwell is doing this kind of work and it can be done by thousands who read this sketch—if not on the same scale, at least with the same spirit and to the same worthy end.

FEEDING THE LITTLE CHICKS

Mixture of Equal Parts Hard-Boiled Eggs and Stale Bread is Best for a Starter.

For the first three days chicks may be fed a mixture of equal parts hard-boiled eggs and stale bread, or stale bread soaked in milk. When bread and milk are used, care should be exercised to squeeze all milk out of the bread. From the third or fourth day until the chicks can eat wheat and cracked corn, commercial chick feed is a good ration.

ALFALFA AND CLOVER CROPS

Supply of Cultures for Inoculation May Be Obtained From the Bureau of Plant Industry.

If you think your alfalfa or sweet clover will do better by being inoculated, you can obtain a supply of cultures for this purpose from the Bureau of plant industry at Washington. Directions will be given for using the material and blanks furnished for reporting the results.

Constipation the Father of Many Ills.

Of the numerous ills that affect humanity a large share starts with constipation. Keep your bowels regular and they may be avoided. When a laxative is needed take Chamberlain's Tablets. They not only move the bowels but improve the appetite and strengthen the digestion. Obtainable everywhere.—Adv.

ONE AIRSHIP IS BROUGHT DOWN IN CITY OF LONDON

ANOTHER OF RAIDING CRAFT IS HIT BY BRITISH GUNS ON ESSEX COAST.

GERMAN ZEPS, SWOOPING DOWN AT NIGHT, FIND DEFENDERS READY

Crowds in City See Burst of Fire Over Outskirts When Foe is Felled. No Casualties Are Reported.

LONDON, Sept. 23.—Zeppelin dirigible warships again paid heavy toll in a raid over England last night and continuing past midnight this morning.

One airship was destroyed over the outskirts of London, where it came flaming to earth, while a second was officially reported to have been brought down on the coast of Essex, but the facts of this second official report are as yet unconfirmed.

First news of the raid came when word was received at London that Zeppelins had been sighted shortly before midnight on the east and south-east coasts of England.

An official statement issued after 2 o'clock this morning said: "Airships made a raid on the east and southeast coasts of England last night, dropping bombs in various places. The raid is still progressing. No reports of casualties or damage have yet been received."

Hardly had this report been made public and the light put out all over the city than the air monsters appeared. Instantly a fleet of aeroplanes rose to meet the invaders, but the dark night prevented any sight of any action there might be until the crowds anxiously peering aloft saw, far over the outskirts of London, a burst of flame, followed by a detonation and a swift flight earthward of a mass of flame. Soon after an official report was issued that a Zeppelin had been destroyed and brought down in flames over the outskirts of London.

MAN "GETS" RELIGION; CONFESSES TO SHERIFF

M. ANDERSON, PORTLAND, SAYS HE HUNTED AND FISHED WITHOUT LICENSES.

M. Anderson, 387 East Ankeny street, Portland, finds that his old sins come back to worry him after conversion. To ease his mind and clear his conscience, he has made a confession to Sheriff Wilson, of Clackamas county. The confession was received here by mail Saturday, and follows, just as written:

"Sept. 23, 1916. "Sheriff at Oregon City "Because God has saved my soul and made me a Christian, I got to confess out things I have done wrong against the state. Last winter I was out hunting and that with out a Grant from the State

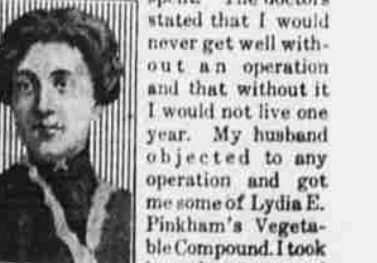
"and in the spring I was out fishing the same way. I detest get any birds. I got one Fish about 3 inch long. I ask for forgiveness many Times "Yours truly "387 East Ankeny street "Portland, Ore.

"M. Anderson." Sheriff Wilson believes that the rather remarkable confession was sent to him because Anderson went fishing and hunting in this county. The letter is written on one side of a sheet of note paper in a careful laborious hand. The sheriff does not know Anderson.

HUSBAND OBJECTS TO OPERATION

Wife Cured by Lydia E. Pinkham's Vegetable Compound

Des Moines, Iowa.—"Four years ago I was very sick and my life was nearly spent. The doctors stated that I would never get well without an operation and that without it I would not live one year. My husband objected to any operation and got me some of Lydia E. Pinkham's Vegetable Compound. I took it and commenced

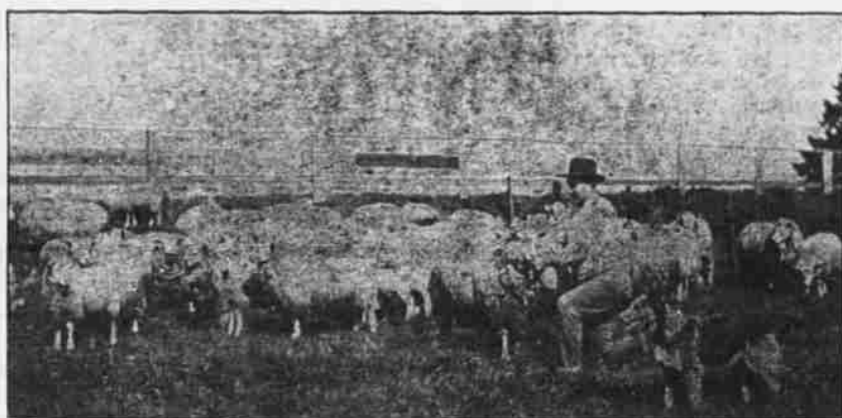


to get better and am now well, am stout and able to do my own housework. I can recommend the Vegetable Compound to any woman who is sick and run down as a wonderful strength and health restorer. My husband says I would have been in my grave ere this if it had not been for your Vegetable Compound."—Mrs. BLANCHIE JEFFERSON, 703 Lyon St., Des Moines, Iowa.

Before submitting to a surgical operation it is wise to try to build up the female system and cure its derangements with Lydia E. Pinkham's Vegetable Compound; it has saved many women from surgical operations.

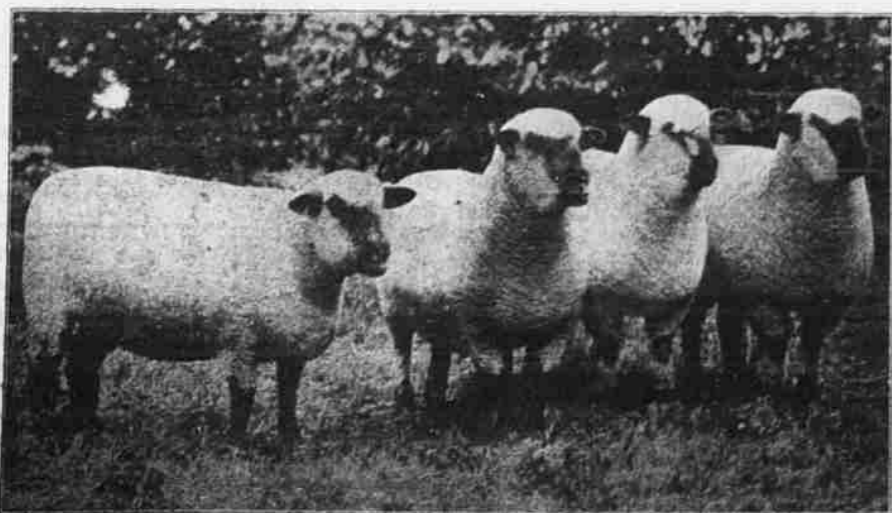
Write to the Lydia E. Pinkham Medicine Co., Lynn, Mass., for advice—it will be confidential.

Jim Smith And His Prize Winners



This is a picture of Jim Smith, his pet collie dog and his sheep which walked away with so many prizes at the Clackamas county fair at Canby this year. Mr. Smith was awarded first prize on every head entered. Some record! He takes much pride in his sheep and is considered one of the leading sheep breeders in the north Willamette valley. His sheep pens attracted much attention at Canby.

Prize Winning Sheep Taken To Salem



This picture shows some of the registered Hampshires that were exhibited at and won the first prize at the Clackamas county fair of 1916. These sheep were in the private stock pens of Judge Grant B. Dimick, and are owned by Dimick & Gregory at the Greenwood Stock Farm, Oregon City, Route 1.

This is the first time that Dimick & Gregory have shown sheep at the fair, although they have had large exhibits of swine, including O. I. C. Berkshires and Poland Chinas at every fair held in former years. Plans are

being made to have a large exhibit of stock at next year's fair, and the pens will be enlarged. At the Dimick Stock Farm, at Hubbard, with E. J. Lankins as superintendent, are some of the best Ayrshire cattle in the northwest. They were exhibited several years ago, and carried off the grand champion and first prizes at the fair.

These farms are to be represented at the Oregon State fair by some of the prize swine, and were shipped to Salem Friday morning. Among these were some of the Poland China and

O. I. C. Dreads. There are 15 head in all that are to be exhibited, six head of the O. I. C. and the remainder the Poland Chinas. These will be in charge of E. J. Lankins, of the farm at Hubbard, and Thomas Gregory, of the farm at Greenwood. "Pacific Jumbo," the herd boar, weighs over 700 pounds, and no doubt will come away from the Oregon State fair with one of the big prizes. The University of Nevada, at Reno, recently purchased one of the pigs of Mr. Dimick's breed.

COMPLAINING WITNESS IS SUED BY HERBAUGH

MAN CHARGED WITH STATUTORY CRIME BRINGS SLANDER ACTION FOR \$5,000.

M. H. Herbaugh, arrested in August on a statutory charge, filed through

Brownell & Sievers, Monday, a \$5,000 slander suit against Samuel P. Hondrick, who is the complaining witness against Herbaugh. Herbaugh was bound over to the grand jury in Justice of the Peace Sievers' court and is free under \$3,000 bail until the grand jury meets.

The girl in the case is the 14-year-old daughter of Hondrick, the defendant in this case, and a niece of Herbaugh. Both are farmers in the Needy district in the southern part of the county.

J. Ira Routledge filed a suit for divorce against Elizabeth S. Routledge

in the circuit court Monday, alleging cruel and inhuman treatment. They were married in Juneau, Alaska, May 16, 1899. Brownell & Sievers appear as her attorneys.

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