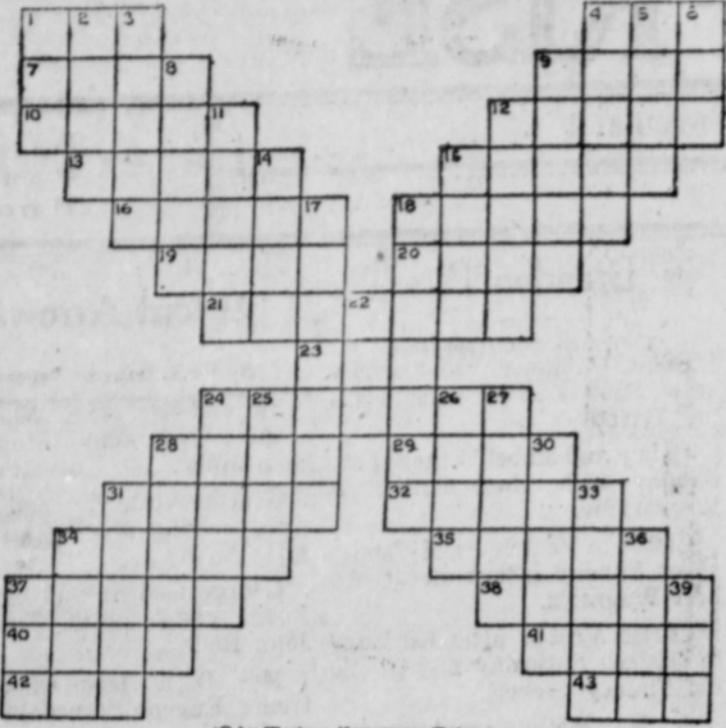


CROSS-WORD PUZZLE No. 20



- Horizontal. 1—Shoemaker's tool. 4—One hundred pounds (abbr.). 7—Pause. 8—Foot covering. 10—Pertaining to fabrics. 12—Where the ocean stops. 13—Citrus fruit. 15—Pile of hay. 16—What you ought to do if your subscription has expired. 18—Hit of flame. 19—Mark left by a wound. 20—Yarn. 21—What the rubber on your pencil is for. 23—Mythical origin of frankfurters. 24—Those who make charts. 25—Wise man. 26—Fodder. 28—Frolic. 32—Long periods of time. 34—P. P. of "will". 35—Fear. 37—From a definite past time until now. 38—Sellings. 40—Woody perennial plant having a singular main stem. 41—Long, heavy hair about neck of some quadrupeds. 42—Word awaited by lover to make him happiest man in world. 43—Stain, color. Vertical. 1—Solemn wonder. 2—Most rooms have four of them. 3—Jailbird who never expects to get out. 4—Wedge. 5—Labor. 6—Small mound of earth. 8—Recurrent occasional repetition. 9—Parcel of stock. 11—Present time. 12—Festive from age. 14—At hand. 15—Fight. 17—Outside covering of a cigar. 18—Deprive of sensibility. 22—To take liquid food. 24—Tree giving a valuable sap. 25—Old. 26—Any of various bamboo-like grasses. 27—Burns. 28—A rollah. 29—Nocturnal fancy. 31—Geometrical figures. 33—Mixture of vegetables. 34—Slender rod of metal. 36—Contradict. 37—Pig pen. 38—Observe.

Solution of Puzzle No. 19. RABBIT CABALA. C DELVE ELATE. OR NOON NONE LA. MAR TRUSTED PAP. BRIG YOURS LOBE. AEGOP UNE VALOR. TRELIS SLATERS. ION ORE. SCRATCH COURAGE. TOOTS ORE SABER. RASH PSALM LEAR. ALE RATTLED TRA. PS HURL ITEM SA. S GENE SENSE A. MARTYR TRYSTS.

Alfalfa Profitable Crop for Use in Any Section

While farmers are growing a good deal of alfalfa they do not grow enough. It is by far the best noncultivated crop we can grow, and usually returns as much profit per acre as corn, wheat, or any other cultivated crop. As a hay crop it is second to none, yielding as high as four tons to the acre in favorable years and never less than two tons. It is liked by every animal on the farm from chickens to horses, and they will leave their grain to eat good alfalfa hay. If it is within their reach, give calves all the alfalfa they will eat after they are four months old and they will thrive on it. It is almost a necessity for milk cows. It doesn't matter what you feed a cow, if you leave the alfalfa out she will decrease in the flow of milk at once.

Greens in the garden are better than greenbacks in the pocket. It costs more to do without good farm machinery than to buy it. Feed your soil and your soil will feed you, say the soil fertility men.

Weed seeds are costly to the farm in price paid for them and in loss of value to the crop grown. The good farmer lays his battle plans for the insect and disease war of the approaching summer.

Use oats as a nurse crop for sweet clover rather than barley. In either case the nurse crop should be sowed at about one-half the normal rate of planting. Though sunlight costs nothing, it is about the most valuable thing you can give your chicks.

If you fail to beautify your premises with flowers and shrubbery, you cheat yourself and your visitors.

In starting a new crop year it is well to remember that the incentive to agriculture is not chiefly profit but the satisfying of the human interest in creative production.

All crops except timothy give better yields when they are grown in rotation than when grown in continuous culture, experiments at the New York State College of Agriculture show.

Improving Live Stock Breeding

Reports and Comments From Stockmen in Various Parts of Country.

(Prepared by the United States Department of Agriculture.)

An unusual amount of sound counsel on questions of live stock breeding is contained in recent reports received by the United States Department of Agriculture from stockmen throughout the country. The reports and comments were invited by a questionnaire on methods of improving farm live stock. The following terse statements seem suitable for consideration by farmers seeking to improve their herds and flocks:

Terse Statements. "The choice of a herd sire will likely make or break you in the dairy game. If you pick a good one, the price you pay is of little consequence; if you pick a poor one, you will pay too much even if you get him for nothing."

"Pure breeds are better sellers and make more meat for the amount of food and length of time."

"When young, untested stock is sold, the breeder should keep in touch with the purchaser, so that if the stock does not turn out as it should through no fault of the purchaser, the breeder can make the deal right. It pays directly and indirectly, aside from the fact that it is the fair way to do."

"Preach individuals first and pedigrees second."

"None but high-producing cows are profitable and the use of pure bred sires is the shortest road."

High Utility Value. The detailed report to which the foregoing comments were incidental shows briefly that pure bred live stock has high utility value from a production and market standpoint, and that it costs but little more to produce high-class animals than the ordinary kind. The investment and other factors which appear sometimes to increase production costs are offset by early maturity and other important savings due to improved breeding.

Estimates of the Hood River valley fruit crop vary. The bloom has been more scattered than in any past season. In instances growers who had more than 30,000 boxes of apples last season say they count on 10,000 boxes this year. One east side grower who had over 25,000 boxes in 1924 says he does not expect over 6000 boxes. Estimates for the 1925 tonnage ranges all the way from 800,000 to 1,800,000 boxes.

The agricultural economic conference at O. A. C. brought out the statement that in western Oregon clover yields from 3 to 5 1/2 bushels of seed per acre, while in the eastern clover seed sections the yield is but about half that. And this country imports annually \$2,000,000 worth of seed of the clovers, grass and vetch.

TO LET 100 Acres A No. 1 Sheep Pasture J. D. Rode 3 miles west of Halsey

It Pays Well to Grade Potatoes Oregon May Regain Its Lost Prestige as a Grower

The Harrisburg Bulletin voices complaints made by some potato growers that the amended potato grading law is burdensome, and that, anyway, prices have been too low this year and they are going to quit raising potatoes for sale. The same complaint about this year's prices comes from other parts of the United States, where there has been no grading legislation. There has been overproduction and consequent price depression, but the man who marketed a high-grade article has, as a rule, received more for it than he would for the entire crop ungraded and has had the culls, practically as much clear gain, to feed to hogs, chickens or cattle. If the low price reduces the acreage planted as much as seems likely there is a prospect that the man in Linn county who plants certified seed potatoes on good potato soil that has been in other crops the past two years, gives good care and grades properly, can get a satisfactory price. The day when "Salinas valley and Oregon Burbanks" stood at the head of the list in San Francisco potato market quotations passed long ago. Certified seed and careful grading may bring the Oregon spud back to its former high standing.

Blackleg of Potato Can Be Controlled

Formaldehyde or Corrosive Sublimate Favored.

Potato blackleg, one of the most destructive of tuber diseases, can be controlled by treating the seed pieces with hot formaldehyde or corrosive sublimate, provided the seed pieces are planted immediately, or are kept out of reach of a certain small fly until they are planted.

This fly lays its eggs in great abundance about the time potatoes are being planted. If it happens to lay them upon seed potatoes and such seed is planted, the eggs hatch out what is known as the seed-corn maggot, so called because when first discovered it was attacking corn seedlings. According to J. G. Leach of the division of plant pathology, Minnesota College of Agriculture, the eggs contain the blackleg organism when they are deposited. Then as the maggot bore into the seed piece it carries with it the bacteria which first rot the seed and then spread to the stem of the plant, causing it also to rot and die.

The maggots feed upon the bacteria as well as the decaying tuber," says Doctor Leach. "The bacteria remain in the intestinal tract of the maggot until it pupates and makes its way to the surface of the ground where it develops into the adult fly. Thus the insect carries the blackleg bacteria with it at all times."

Capacity of a Silo Is Matter of Importance

The capacity of the silo is a matter of importance. Unless one is keeping at least ten cows the cost of the silo is usually not justified. A round silo, 28 feet high, will hold the silage for about a dozen cows during the usual feeding season. A good standard size ranges from 14 to 16 feet in diameter and 30 to 32 feet high. Under ordinary conditions cows eat from 30 to 40 pounds of silage a day, according to their size and condition of lactation. A farmer can easily estimate how much capacity is needed, on the basis of this amount to be fed per head. If one has 30 cows to feed, then about 1,000 pounds a day would be required, and for a feeding season of seven months or 210 days, 220,500 pounds or 110 tons. A round silo 30 feet deep and 16 feet in diameter inside holds about 120 tons. The capacity of the silo should enable one to feed from the surface daily to a depth sufficient to prevent molding. This is usually placed at around 1 1/2 to 2 inches. In recent years some silo owners on high-priced lands, and not pasturing feed silage every month, beginning to feed just as soon as the silo is filled

The Great Outdoors Where Bread, Meat, Clothing, Health and Vigorous Humanity are Produced

Highest market price paid for your Wool See me before you sell W. F. Carter

Rotation Will Cut Loss Due to Soil Erosion Prof. M. F. Miller, head of the department of soils, college of agriculture of the University of Missouri, presented interesting figures on losses due to soil erosion in a talk made at the annual meeting of the Kansas Crop Improvement association at the Kansas State Agricultural college.

FARM WOMEN ORGANIZE Campaign to Start in June to Enroll 50,000 Members.

Washington, D. C.—Organization of the Federated Farm Women of America was completed here after the delegates had been received by President Coolidge and Secretary Jardine. The purpose as set forth in the tentative draft of the constitution is to "re-establish the peace, happiness and prosperity of the farm homes, to enlist as members groups, associations or individuals in a national or organization which shall be strictly non-political and essentially educational and economic in character."

Cultivation of Soy Bean Shown Motion Picture Gives Every Phase of Culture as Well as Utility.

A motion picture illustrating the cultivation and utilization of the soy bean has just been completed by the United States Department of Agriculture, in which the bureau of plant industry worked in co-operation with Ohio State university. This picture, entitled, "Four Men and the Soy," was at Columbus, Ohio, last September while the annual "Soy Bean day" activities of the Ohio State College of Agriculture were in progress. It is in two reels.

Four Worried Farmers. The story of "Four Men and the Soy" concerns the troubles of four farmers who "were worried," each after his own fashion, and who found in the Soy-Bean-day demonstrations the solution of their several troubles with varieties of soy beans, early or late.

Future is Bright. The conclusion of the whole matter (to quote from the "soy-bean speech" which closes the exercises of Soy Bean day as portrayed in the film) is that the soy bean is "a crop of vast possibilities to the American farmer," and that "its growing popularity and increasing acreage justify the belief that it is destined to become one of the leading farm crops of the United States."

Control Lice and Mites During Summer Weather. With the coming of warm weather lice and mites become a problem to the poultry flock owner because the warmer weather provides conditions more favorable for their increase. As prevention is better than a cure, the flock owner must be ever watchful for these pests.

Lice remain on the body of the bird while mites live on the underside of the roosts and in cracks and crevices

WANTED Sheep to Shear with a Power Shearing Machine Phone 12F12 Harrisburg or write Jim Greene, Harrisburg, route 2.

Greatest Discovery in Fertilizing Soil Like Legumes, Corn Gets Nitrogen From Air. Timothy a Waster

Legumes are not the only crops that take nitrogen from the air. More than fifty years ago the important discovery was made that legumes—podded plants—often use more nitrogen than they take from the soil they grow in. This, it was surmised, they must absorb from the air through their leaves.

Years passed, and investigators discovered that this extra nitrogen is appropriated by underground bacteria from air which enters the soil and that it is fed to the roots of the plants. The microscope discovered these—a different bacterium for each variety. Their presence was discernible by the unaided eye, for they formed nodules of considerable size on the roots of their host plants.

The department of agriculture and the experiment stations cultivate the bacteria and supply them on demand for the inoculation of crops of red clover, white clover, alsike, vetch, peas, beans, etc., a different organization for each.

Now comes a startling new discovery. In a three-year rotation of corn, oats and timothy and clover or timothy and other grasses the corn crop took more nitrogen from the air than the clover did!

These experiments were made at Cornell university. The crops were grown in twelve cement tanks and the drainage water, the soil, crops, etc., were all carefully analyzed.

The total of nitrogen with corn was much greater than in the unplanted tanks. In the timothy tanks there was a loss of nitrogen instead of a gain.

It appears that each particular plant has its associated bacteria which become intensely active when they find the friendly roots of their associate in their neighborhood once more, and that the bacteria which work with other plants become temporarily dormant.

There was twice as much nitrogen lost from one unplanted tank per year as from the whole nine planted ones. Perhaps summer following is a more expensive practice than has been supposed.

A man whose name, we believe, was Barber, raised corn continuously, for many years, on a little patch of ground on Lake creek, between Mapleton and Swisshome, despite the current belief at that time that both rotation and change of seed were necessary to success, and got and increasing crops. His corn probably got its nitrogen by the grace of the newly discovered but unseen bacteria.

To kill crows that pulled up the corn, several farmers in Benton county soaked some good corn in strychnine solution and then coated it with paraffine. They baited the crows with good corn for a few days. Then poison corn was spread. The paraffine delayed digestive action till all the birds got their fill; then the poison killed them.

THE MARKETS

Portland. Wheat—Hard white, \$1.55; hard winter and soft white, \$1.50; western white, \$1.48; northern spring, \$1.52; western red, \$1.49.

Hay—Alfalfa, \$20@21 ton; valley timothy, \$20@21; eastern Oregon timothy, \$23@24.

Butterfat—42c delivered Portland. Eggs—Ranch, 23@26c. Cheese—Prices f. o. b. Tillamook: Triplets, 26c; loaf, 27c per lb.

Cattle—Steers, good, \$9.75@10.25. Hogs—Medium to choice, \$12@13.55. Sheep—Lamb, medium to choice, \$13.00@15.00.

Seattle. Wheat—Soft white, \$1.55; western white, \$1.53; hard winter, \$1.55; western red, \$1.53; northern spring, \$1.55; Big Bend bluestem, \$1.80@1.98.

Hay—Alfalfa, \$24; D. C. \$28; timothy, \$26; D. C. \$28; mixed hay, \$24. Butterfat—45c. Eggs—Ranch, 27@32c. Hogs—Primes, \$13.75.

Cattle—Choice steers, \$9.25@9.55. Cheese—Oregon fancy to retailers, 27c per lb.; do standards, 25c; Washington fancy triplets, 25c.

Spokane. Hogs—Prime mixed, \$12.75@13.10. Cattle—Prime steers, \$9.50@10.00.

For thrifty, healthy chicks feed FISHER'S CHICK FEED and "Developing Mash" O. W. FRUM