

FARM STOCK

MILL FEEDS FINE FOR SPRING PIGS

Wheat by-products, such as middlings and red dog flour, can be used to advantage with a ration of corn and tankage under price conditions which have prevailed during the past two years, according to feeding tests which have been made at the Minnesota station. Spring pigs were used in the tests, and four lots were fed during each of two summers. Each year one lot of pigs had a ration of 90 per cent shelled corn and 10 per cent tankage until they reached 100 pounds, after which the ration was changed to 85 per cent corn and 5 per cent tankage. The ration for each of the other three lots each season before reaching 100 pounds in weight was 65 per cent corn, 30 per cent wheat by-products and 5 per cent tankage. After passing the 100-pound mark, these pigs had 75 per cent corn, 23 per cent wheat by-product and 2 per cent tankage. The three wheat by-products compared were standard middlings, flour middlings and red dog flour.

Gains made on the rations containing the wheat mill-feeds were slightly higher than on corn and tankage. On each 100 pounds of gain, 80 to 85 pounds of the mill-feeds saved from 60 to 85 pounds of corn and about 9 pounds of tankage.

Tankage used in the tests cost \$60 per ton, while the corn averaged about 85 cents per bushel. The grade of standard middlings fed cost \$26 per ton. Flour middlings were slightly higher, averaging about \$30 per ton, while the red dog flour cost an average of about \$35 per ton.

At these prices, the pigs which had the two grades of middlings made a little cheaper gain than pigs fed corn and tankage, the savings amounting to 25 to 40 cents on each hundred pounds of pork. In one case the gains made by the pigs which received red dog flour were a little cheaper than those made by the corn and tankage lot, while the other year the red dog flour added a little expense to the gains.

The tests indicate that when the wheat by-products, particularly middlings, can be bought at not to exceed half the price per ton of tankage they can be used with corn and tankage to the extent of about one-third of the ration for pigs which are on good pasture.

DAIRY

DECREASE IN FAT TEST IS EXPECTED

The appreciable falling off in the butterfat content of milk at this time of year when cows are put on pasture causes considerable consternation among some dairymen, and may lead them to believe that errors have been made at the creamery test. The dairy department of the New Jersey State College of Agriculture, New Brunswick points out that the change to pasture causes an increased milk flow which necessitates the butterfat's being distributed through a larger volume. This makes its percentage look smaller, but the total quantity is not less.

The college makes a few suggestions to aid in getting good samples.

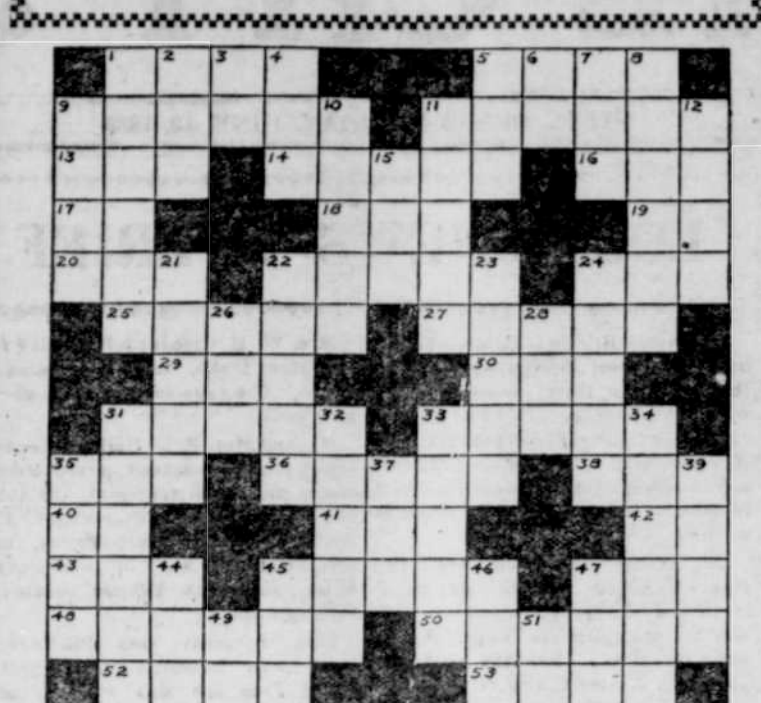
One must be sure that the sample is truly representative of the lot of milk from which it is taken. Cows should be milked dry and the milk poured several times from one container to another. The sample should be taken immediately. Enough milk must be procured for two fat tests. This requires about one-fourth pint.

Care must be taken to prevent the sample from souring before it reaches the laboratory. To insure against souring, a preservative is added. Bichloride of mercury tablets are the most efficient and one-half tablet is enough. Formaldehyde or formalin may be used at the rate of three drops to a sample. In each case the preservative should be mixed thoroughly with the milk.

One of the most important steps is that of filling the sample bottle to overflowing before inserting the cork. If the bottle is not full the milk will be agitated in transit to such an extent that churning will result. When butter granules are once formed, it is difficult to get a reliable test. When small medicine bottles are used, it is the practice to make a hole in the cork with a nail. Fill the bottle entirely full of milk. Insert the cork and seal it by pushing a match into the hole in the cork. This will prevent the cork from being forced out by either gas or air escaping from the milk.

When these few directions are observed, there is no difficulty in obtaining an accurate determination of the fat content of the milk.

CROSS-WORD PUZZLE



- Horizontal.
- 1—Treed on
 - 5—A biblical character
 - 9—Crested meeting place
 - 11—Recent
 - 14—Musical instrument
 - 16—Announce
 - 18—To dress up
 - 20—Pacific abbreviation
 - 22—A municipal power
 - 24—Very dark
 - 27—Sweet
 - 28—Pull
 - 31—Psychological phenomenon
 - 32—Tree
 - 33—Girl's name
 - 35—Pointed instrument
 - 41—Debt
 - 43—Girl's name
 - 47—Dentist (abbr.)
 - 48—Obtained again
 - 50—With facility
 - 52—Landlord's delight
 - 53—To guzzle
- Vertical.
- 1—Pliable
 - 2—Beverage
 - 4—High temperature
 - 5—Vehicle
 - 7—Possessive article
 - 8—Better arranged
 - 9—Habit
 - 10—Birth
 - 12—A tiller of the soil
 - 15—Youth
 - 22—Beyond comprehension
 - 23—Money
 - 24—Strong medicine
 - 3—Thus
 - 6—Preposition
 - 11—Word
 - 21—Evil

The solution will appear in next issue.

Solution of Last Week's Puzzle.

APRIL ISLAND SOUTH
 STREETS LAGOON RESTORATION
 OAT RALE AGGREGATION
 ACHIEVE SETTLED BARRA
 EMBROIDERED COMAGNETIC
 TAPIR AFRICAN RIVER
 BUNDO ALL ONTO
 ICHING CONTEMN UNTE
 LAD ANTONIAGASTA UNNA
 GRASSIE SEAFANATH LINDS
 EMBROIDERED COMAGNETIC
 SCARCE BERTHA ASKED
 ALE ERGO S TORT VIM
 BANIT FOOTSTEPS DIVA
 BIT O FORE OWNE S NON
 ENRAGED NOW RELICTS
 SARRAS SIGN AWARE S
 SALTER TERSE SMESIS

HOW TO SOLVE A CROSS-WORD PUZZLE

When the correct letters are placed in the white spaces this puzzle will spell words both vertically and horizontally. The first letter in each word is indicated by a number, which refers to the definition listed below the puzzle. Thus No. 1 under the column headed "horizontal" defines a word which will fill all the white spaces up to the first black square to the right, and a number under "vertical" defines a word which will fill the white squares to the next black one below. No letters go in the black spaces. All words used are dictionary words, except proper names. Abbreviations, slang, initials, technical terms and obsolete forms are indicated in the definitions.

Hog Will Keep Clean if Given the Opportunity

Many of the failures in hog raising may be attributed to the mistaken idea that a hog is a filthy, obnoxious beast and should be treated as such, according to D. A. Weber, instructor in animal husbandry at the Kansas State Agricultural college.

"A hog will be as clean as the owner will allow him to be," said Mr. Weber. "If given an opportunity the hog will be a clean housekeeper."

"It is true that hogs like to wallow. They have no means of perspiring and must wallow to keep cool. However, they will not object to a clean wallow filled with fresh water. Care should be taken not to pour cold water on the back of an overheated hog. It is very likely to cause death."

"Obstinacy is a trait of the hog, and patience must be used in handling the animals. They are also home-loving creatures, and frequent changing of quarters often causes them to become chronic fence breakers."

Value of Skim Milk

One hundred pounds of skim milk is ordinarily worth the equivalent of ten pounds of corn plus five pounds of tankage for fattening hogs. With suckling brood sows or young pigs or fall pigs which are not doing well, it may be worth more than this. With corn and tankage at present prices skim-milk would seem to be worth about 35 cents per 100 pounds for fattening hogs.

Friends of Farmer

Weeds are the enemies of the farmer and sheep are the enemies of weeds. Hence—sheep are the farmer's friends—especially in these days of meat and wool shortage. The farmer with a good flock of sheep is sitting pretty. The farmer who is not sitting pretty had the same chance to get started with sheep when the starting was good. It's not too late now, at that.

Producing Better Stock

Before good live stock can be produced in large numbers there must be a wide appreciation of the utility value of good breeding coupled with the actual use of high-class pure bred sires at the head of herds and flocks. The better-sires—better-stock campaign undertakes to supply this need in an educational way.

Consumption of Mutton

The sheep grower must depend upon home consumption to use the lamb and mutton produced. There seems to be room for a great increase in the demand. The average yearly consumption of mutton and lamb per capita in the United States in the decade preceding 1921, was 6.2 pounds, 4.25 per cent of the meat eaten. In Great Britain, it was more than 20 pounds, 22 per cent of the total meat eaten. As a whole, our greatest consumption is in the cities.

How to Feed Dairy Cows to Obtain Big Profits

Feed all the roughage a cow will eat. This should include succulent feed and a legume hay.

With a good roughage—as alfalfa, soy bean, or clover hay—feed a Jersey or Guernsey one pound of grain to each two and one-half to three pounds of milk; a Holstein, Ayrshire, Brown Swiss, or Shorthorn, one pound of grain for each three to three and one-half pounds of milk.

With a poor roughage, such as timothy or wild hay, feed a Jersey or Guernsey one pound of grain for each two pounds of milk; a Holstein, Ayrshire, Brown Swiss, or Shorthorn, one pound of grain for each two and one-half to three pounds of milk.

These rules for feeding dairy cattle are laid down in Bulletin 218, "Feeding the Dairy Herd," prepared by C. H. Eckles and O. G. Schrader of the dairy division, University of Minnesota, and just issued by the Minnesota agricultural experiment station. Copies can be obtained by addressing the Office of Publications, University Farm, St. Paul.

The good dairyman, the bulletin says, tries to maintain summer conditions the year round. The conditions of early summer which make possible maximum production are: Abundance of feed, palatable feed, a succulent ration, a sufficient amount of protein, moderate temperatures and comfortable surroundings.

Stringy Milk Caused by Certain Bacteria Form

Stringy milk, or milk that gets thick after standing awhile, is caused by a certain form of bacteria that get into the milk, either through the water used in washing the milk utensils, from the udder of the cow or cows, or from the dust of the feed given the animals. The source of the infection may be the cream separator, especially if care is not used to have this utensil carefully cleansed and sterilized each day. It may be well to keep the milk from each cow separate for a few days to determine whether or not the infection came from a single cow. It may take some investigation to discover the source of the trouble, and in the meantime all vessels used for the milk should be washed thoroughly and scalded after each using.

Varying Temperatures

Warm cream should never be mixed with cold cream as this will not only hasten the souring process, but will also give the cream an off-flavor. The proper way to mix the morning's cream with the cream of the evening before is to thoroughly cool the warm cream before it is mixed with the cold cream. While the cream is cooling the cover should be slightly raised to allow the animal flavor to escape and the cream should be stirred.

HARBORD TELLS OF GOLDEN AFTERNOON

Colonel Dawes, with whom I have many tastes in common, and I had decided to have luncheon together at the Tour d'Argent, Paris, eating duck No. 48,021, I believe, and then go to Brentano's and pore over the old books. Major General Harbord writes in the Saturday Evening Post.

Dawes is fond of Napoleon, as I am also. He is a man of wealth—and he bought what he saw that he liked. He tossed into a pile book values that would have been earnest subject of prayerful deliberation with me for half a year. Left \$100 with Brentano for the afternoon's work, and gave me about half the books he bought—old rare editions of "History of the Bastille," "Martyrs of the Bastille," and so on.

We went to his room at the Ritz and gazed at a few gloats, and then attended a tea given by Mrs. Sharp, wife of the ambassador. For dinner we went to the little cozy apartment of Colonel and Mrs. Boyd, and after dinner we went to a circus and saw a very interesting performance—two good acts with trained Arab horses, especially.

Dangerous Job

News photographers are accustomed to working in dangerous places, but G. A. Shoemaker of the army art service is said to be the only one who risks his life regularly by falling in order to take pictures, says Popular Science Monthly.

With three small motion-picture cameras strapped to his back, belt and parachute on his back, this daring photographer, a senior instructor in parachute jumping, leaps from the wing of a Martin bomber.

Finds Guests Honest

At Pearsall, Texas, the sheriff of the county, H. L. Brooks, has put into operation a "help yourself" hotel and the guests appear to like it. The guests register without assistance, erasing from a nearby blackboard the number of the room they select. When they leave after a day or a month, they put the money to pay for their stay in an envelope and drop it into a locked box near the door. The hotel owner seldom appears, there is no cashier and servants give unobtrusive service. Mr. Brooks says he has been cheated out of only \$2 thus far.

POTATO LOOKED ON AS RARE DELICACY

The potato went through a long season of doubt and suspicion before it was accepted as a wholesome article of diet by the British consumer. A seventeenth century Scot's treatise on "Husbandry Anatomized" had recommended the cultivation of the potato on a large scale, with hints as to its preparation for the table. But it was long before the potato emerged from the sphere of tentative horticulture. It continued to sell by the ounce as a rare delicacy; and as late as 1740 two sackfuls of potatoes sufficed on a market day for the 5,000 inhabitants of Paisley. Consternation reigned in South Uist when the chief of the clan proposed to cultivate a potato crop, and only under threat of imprisonment were the inhabitants induced to lend their aid for the sowing. Years of famine played their part in reconciling the Highland crofters to the consumption of this uncanny new-fangled product.—Montreal Family Herald.

Going a-Milking

The farmer's pink-cheeked daughter was coming up the lane. She was clad in a grimy pair of overalls, from the pockets of which bulged bunches of waste and sundry wrenches and pliers. In her hand was a dirty satchel rattling with an assortment of iron tools.

Polka Revival Attempted

Farmers in the Marysport district of England have attempted to revive the polka and other old-time dances, much to the joy of the younger generation, who seemed willing to drop the modern steps somewhat upon being taught the polka and the lancers by the older dancers. William Smith inaugurated the novelty at a dancing hall, with the aid of the more mature residents of the community.

Crow an Ideal Thief

The crow is an ideal thief. It never bungles its job. Naturalists say that it can carry away the egg of another bird without spilling a drop of the contents. To do this it accomplishes another difficult feat, that of driving its bill partially through the egg without breaking the shell on the other side.

Horticultural News

PRUNE AND PLOW IN ANY FARM ORCHARD

Neglected and run-down orchards can be restored, in part at least, to normal productiveness. The method of restoration will vary necessarily with the condition of the trees and the soil. As a rule, both the trees and the soil need attention.

Where pruning has been neglected, the trees are usually full of wood which must be thinned out. This will act as a stimulant to more vigorous wood growth and the storing up of reserve food for fruit-bud formation. The pruning should not be too severe. If a large number of the branches has to be removed it is preferable to complete the pruning the second year. In pruning the following limbs should be removed, suggests A. E. Schilleter, extension horticulturist of Clemson college:

1. Dead, broken, and diseased branches.
2. Water sprouts, except where it is desirable to replace an injured or dead branch.
3. Crossing or rubbing branches.
4. Small branches at the center of the tree where sunlight cannot penetrate to color the fruit.
5. Branches that touch the ground.

The cuts should be carefully made, if they are to heal over. Several different experiments in pruning have proved that the time has little to do with rapidity of healing, but that the important factor is the method of making the cut. First of all the cut should be smooth. Few people are expert enough with the ax to warrant using this tool except for dead trees. If a stub is left the chances are that the wood will not heal over, and that the wood will rot down into the trunk of the tree. If it is impossible to cut up close with a saw and the limb must come out, use a chisel and mallet to finish the job.

Wounds an inch or more in diameter should be painted over to exclude diseases and moisture while the wound is healing. White lead mixed with linseed oil will serve the purpose. However, it has a tendency to peel off, so the application should be repeated when that occurs.

The land should be plowed as early as possible in spring, but before plowing, a heavy dressing of well-rotted stable manure should be applied. Where the orchard has been in sod for several years, the plowing should be shallow, so as not to tear up the small feeding roots which always come to the surface in sod orchards. Two years of clean cultivation will send the roots downward and there will be no danger of disturbing them. Afterwards the orchard should be kept in some kind of cover crop and in clean cultivation.

Bridge Grafting Saves Trees Hurt by Rabbits

Apple and other trees injured by rabbits or mice should receive treatment as soon as noticed. Where the damage is slight the bark should be smoothed down and the injured portion covered with grafting wax. But when the bark has been completely eaten away or the tree girdled it will be necessary to resort to bridge grafting. This should be done as soon as possible, preferably before growth starts. First smooth the margins of the injured region, using a sharp knife. Then bridge over this region using cion wood of last year's growth. Cut both ends of the cion in a wedge shape with the inner bevel much longer than the outer one. These bevels should be parallel with each other, and the prepared cion a little longer than the width of the girdled area. Then place the ends of the cion under the edge of the bark and below the injured region. Be careful to have the buds pointing out and to wax all cut surfaces.

Horticulture Notes

Get spraying and dusting machines in perfect order.

No kind or amount of pruning will overcome the handicap of an unfortunate selection of soil.

Put calyx spray on apples for codling moth; 1 1/4 pounds arsenate of lead, 1 gallon lime-sulphur concentrate, 50 gallons of water.

In a few years a bridge-grafted tree will form a new cover of actively growing tissue and thus will be little the worse for its experience.

Dead branches in the top is a sure indication that unless radical measures are taken to restore vigor in a tree it will soon go to the brush pile.

If we mulch any crop we must be careful to keep the mulch in place during the growing season or the fiber roots will be destroyed, and this will check the plants and sometimes it will be severe enough to kill them.

No pruning discussion would be complete without a word concerning orchard soils. The moisture and fertility supplied by the soil is the big factor in deciding how large those trees must be before they will come to bearing.

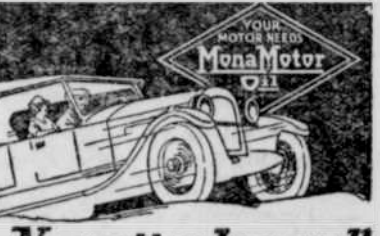
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United States Rubber Company

Water for Morocco City

Malilla, Morocco, which has been in the hands of the Spaniards for more than 400 years, is about to be provided for the first time in its history with a public water supply. Gangs of workers are now engaged in laying cement pipes to bring the water from the Yasinien, and it is hoped that within a short time the municipal authorities will be able to furnish the inhabitants with sufficient water for drinking and hygienic purposes.



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Foolish Fears

French Consul Antonin Barthelmy said at a reception in Chicago: "There is no danger of a bolshevik revolution in France. Those who quake and wall over such an absurd danger as that remind me of the little boy who ran to his mother's bed in the middle of the night and sobbed: "Oh, muuver, muuver, I dreamed I was a stick of candy and eated myself up!"

All things come with the waiter who serves an order of hash.

ALL WORN OUT?

Are you lame and stiff; tired, nervous and depressed; miserable with back-ache? Have you suspected your kidneys? Good health depends upon good elimination. But sluggish kidneys allow impurities to accumulate and upset the whole system. Backache is apt to follow; stabbing pains, depressing headaches, dizziness, and other annoying kidney irregularities. Why experiment? If your kidneys are sluggish, why not use Doan's Pills. Doan's is a harmless stimulant diuretic. Used the world over. Ask your neighbor!

A Utah Case

John Pimblett, 190 E. Second St., North Logan, Utah, says: "As a cold settled in my kidneys, intense pains darted across my kidneys and the muscles were stiff and sore and I had no control over the action of my kidneys. I had to get up through the night to pass the kidney secretions. I used Doan's Pills and they cured me."

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