

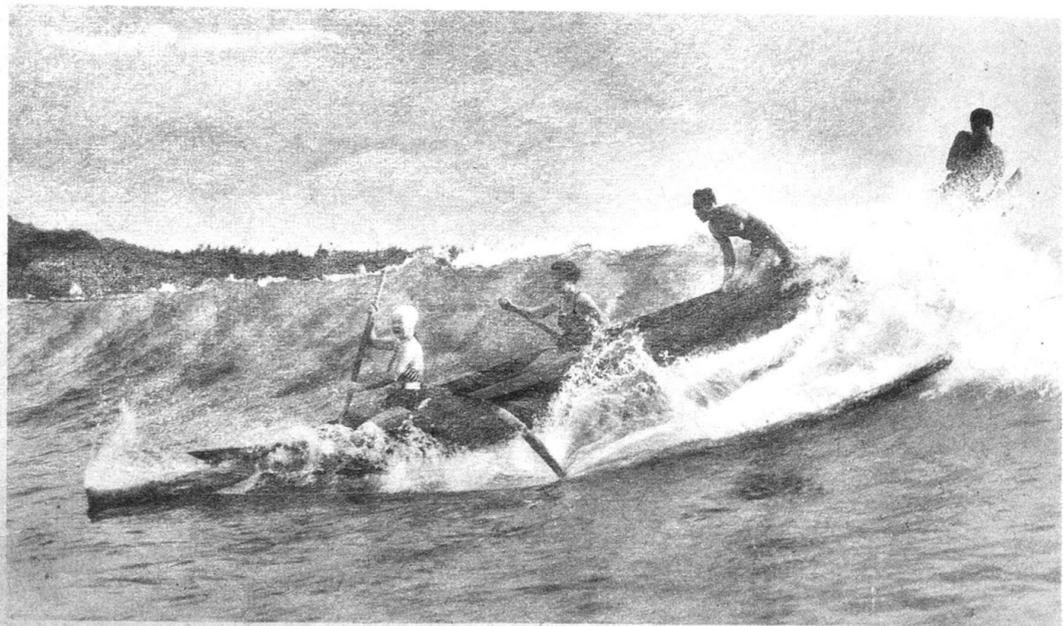


The **STATE FARMER**
SECTION
AGRICULTURAL FEATURE OF



The Marion Democrat

MARION, VA., TUESDAY, APRIL 7, 1936



BOATING THRILLS. Skidding over a big wave at Waikiki, University of Hawaii students (above) have an exciting ride.

(Below) There's excitement, too, in a boat ride through the Stygian darkness on Echo River, Mammoth Cave, Ky. (Pan-Pacific Press Bureau and Caulfield & Shook Photos)



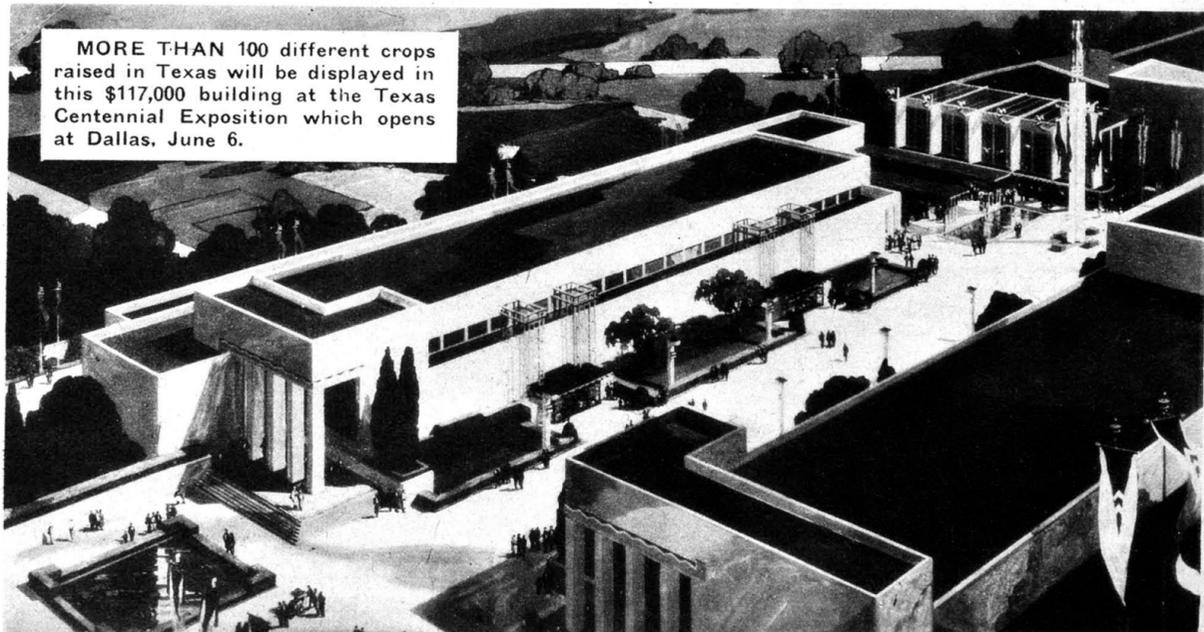
WHEN THE RHODODENDRON BLOOMS on the Great Craggy Mountains, the Southland turns to Asheville, N. C., for the annual Rhododendron Festival, June 15 to 19, this year. Above, the royal blossoms. Below, reigning royalty, the King and Queen of the Rhododendron Kingdom.



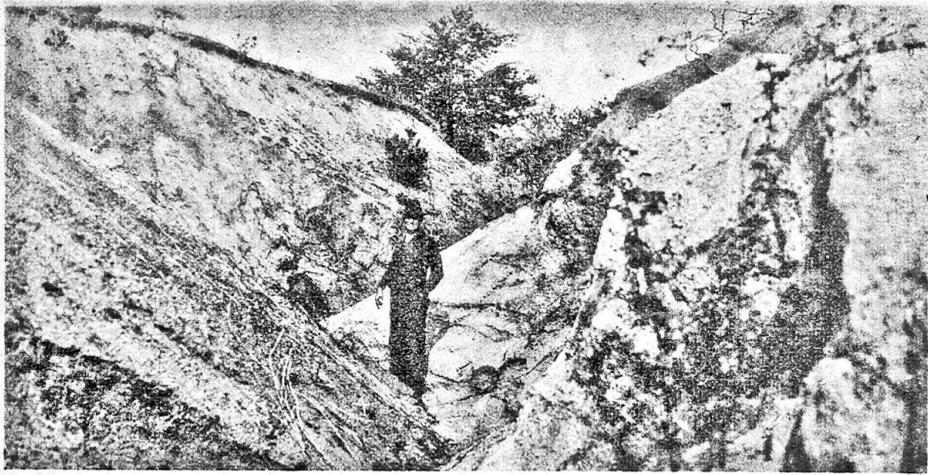
LIKE A FAMILY LETTER, the home newspaper is taken eagerly from the R. F. D. box to be immediately scanned for local news—and for news of the wide world as well. Caught by the camera, as she takes the paper from the box, this pretty farm girl typifies the definite part the community newspaper plays in the farm family's life.—(H. Armstrong Roberts Photo)



KENTUCKY AND TENNESSEE CADETS at the U. S. Military Academy at West Point, don girlish wigs for the annual play, "Two Million Daze." Charles Pulliam, Fort Thomas, Ky., (left); Clarence Evans, Nashville, (right). (Acme Photo)



MORE THAN 100 different crops raised in Texas will be displayed in this \$117,000 building at the Texas Centennial Exposition which opens at Dallas, June 6.



This typical North Carolina gully shows the ravages of erosion in terms of depth. (Soil Conservation Service Photo)

AAA Substitute Aimed to Hit Fundamental Farm Problem

By H. R. KIBLER

PASSED as a substitute for the AAA, the "Soil Conservation and Domestic Allotment Act," signed by the President on March 1, strikes directly at the fundamental national farm problem. It seeks to end the terrific annual national loss from soil erosion. In this respect, it follows the permanent original intention of the AAA plan.

Interest in the temporary phase of the AAA, especially the immediate benefits to be secured through evaporation of farm surpluses and the resulting higher farm commodity prices had rather obscured this long-time purpose which had contemplated establishment of a wise land use to check the drain on the food resources of the nation.

Exhaustion of new land areas for farming development, a country-wide soil survey, and the dramatization of erosion by the choking, blinding dust storms that swept over half the nation in the summer of 1935, has brought city dwellers as well as farmers to the consciousness of the necessity for a national soil conservation policy.

National Action Demanded

The soil survey disclosed erosion had destroyed 51,465,097 acres of land for further use in crop production. In addition, it was found that practically all of the top soil was lost from 105,549,229 acres, and a total of 513,074,201 acres had been robbed of from one-fourth to three-fourths of its top soil. It is estimated that 3,000,000,000 tons of soil are washed out of our fields and pastures every year with a loss of not less than 126,000,000,000 pounds of plant food. The value of nitrogen, phosphoric acid and potash lost amounts annually to \$2,000,000,000.

This destruction of rich food and fibre producing resources indeed constitutes a national calamity. It demanded national action. The new act of Congress deals directly with the problem. It seeks to:

Preserve and improve soil fertility; promote the economic use and conservation of land; diminish the exploitation and wasteful and unscientific use of national resources; protect rivers and harbors against the results of erosion so as to aid flood control and maintain navigability.

And finally, it seeks to re-establish the

Terraced along contours, this North Carolina land combats soil erosion and attendant waste. (Soil Conservation Service Photo)



ratio between the purchasing power of farmers and of people not on farms, which prevailed during the five year period, August 1909 to July 1914.

Individual Grants

To accomplish the purpose of the act there is authorized an annual appropriation of not more than \$500,000,000. Under the terms of the act, federal aid will be made in the form of grants direct to individual farmers to assist voluntary action for the stated purposes of the act until Jan. 1, 1938. After that date, grants will be made only to states upon submission of approved state programs.

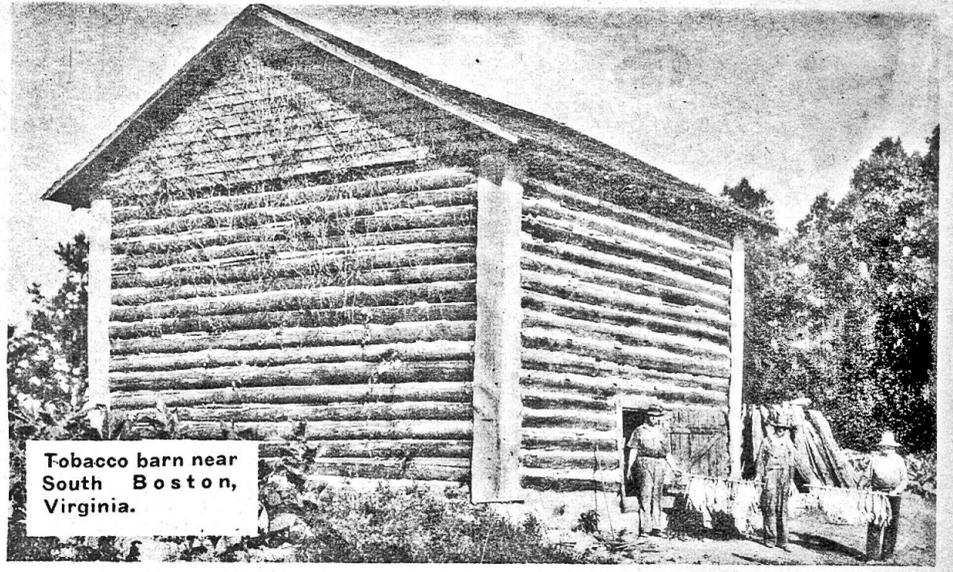
Methods of checking and stopping soil erosion on individual farms include terracing, the growth of cover crops and in some cases, reforestation. Economic pressure has for many years forced farmers to produce cash crops that not only sapped soil fertility, but exposed the land to terrific erosion losses.

The amount of soil and water loss from various cropping systems was effectively illustrated on test plots in the Spartanburg, S. C., area. Comparative figures on pounds of soil lost per acre from these plots show that from a given number of gallons of rainfall per acre, bare plots lost 56,522 pounds of soil per acre; cotton plots 37,745 pounds; corn plots 13,152 pounds, while on lespedeza plots the loss was 2,360 pounds and on Bermuda grass plots only 262 pounds.

Secretary Wallace Explains

Under the two-year or temporary plan of the new Soil Conservation Act, payments will be made to producers for treatment or use of land for soil restoration, conservation or erosion prevention; also for changes they make in the use of their land and for the percentage of their normal production of one or more designated commodities equal to the normal national percentage required for domestic consumption.

Secretary of Agriculture Wallace is quoted directly on this phase of the program as follows: "Payments will be made for the growing of erosion-preventing and soil-building crops, of which there is no surplus, rather than soil-depleting cash crops, of which there is a surplus. That is, a farmer who wishes to put a larger proportion of his farm into such crops as legumes and grasses and a correspondingly smaller proportion into



Tobacco barn near South Boston, Virginia.

New Virginia Tobacco Bill Similar to Equalization Fee

TO continue the benefits secured for Virginia tobacco growers under the acreage control provisions of the AAA, the Legislature of Virginia early in March adopted a bill creating a state Tobacco Commission and providing for the regulation of the sale, marketing and distribution of tobacco.

The new act will not become effective until the Congress of the United States has passed an act consenting to the establishment of compacts between the governments of the various tobacco growing states. After such federal recognition the Virginia act becomes effective with respect to fire cured tobacco upon the enactment of a similar measure by the legislatures of the states of North and South Carolina and Georgia; with respect to burley, upon similar action in North Carolina, Kentucky and Tennessee; and in respect to dark air-cured tobacco, upon action by Kentucky and Tennessee.

Equalization Fee Principle

The control method set up in the Virginia measure follows closely the old equalization fee principle, advocated nationally a number of years ago. It provides for the fixing of a marketing quota

for each grower. Marketing certificates for an amount of tobacco not exceeding the marketing quota for the farm on which the tobacco is produced would be issued by the commission.

Marketing certificates for tobacco surplus beyond the allotted quota would be sold by the commission for not less than 25 per cent or more than 50 per cent of the gross value of the tobacco.

Producers on Commission

The authorized Virginia Tobacco Commission will consist of not less than three and not more than seven members appointed by the government. A majority of the members shall be producers.

The Virginia act sets forth in detail methods for determining marketing quotas for each kind of tobacco for individual farms within the state for each year. For each farm for which a base tobacco production was determined by the United States Department of Agriculture, this base will be accepted after the making of such adjustments as are recommended by the local tobacco committeemen and approval by the state commission.

such crops as cotton, wheat, corn and tobacco will be compensated by the government for so doing. Without some compensation, many farmers could not afford to sacrifice any of their acreage of cash crops."

How Farmer Benefits

Thus, the farmer will be benefitted by direct payments for the development of soil conservation practices. At the same time, he will be building and conserving the value of his farm. In addition, he will receive an increase in yield of crops produced. The county agricultural agent of Yancey County, N. C., has surveyed this latter possibility and concludes that over \$200,000 annual increased crop income will be the immediate reward to farmers in that county resulting from the soil improvement and conservation program. Estimated crop increases are: Corn, 8 bushels per acre; wheat, 5 bushels; oats, 15 bushels; tobacco, 122 pounds; potatoes, 50 bushels, and hay 1-2 ton.

But the protection and conservation of our national food production resources, is of consequence to the entire nation and not to the farmer alone. The stark tragedy of China dramatizes unmistakably the effect of unchecked soil waste on an entire country.

In a final summarization of the plan of the new act, Secretary Wallace states: "I believe that under this new program, we can do a more constructive job of putting a firm physical base under our civilization than has ever been done by any great nation with a continental climate."

Decay of Nations Begins at Roots

By DeWITT C. WING

Wherever in the nation the loss of soil fertility (through water and wind erosion and growing soil-exhausting crops) outruns the restoration of soil fertility (through growing legume, grass, meadow and forage crops and trees, and the application of fertilizers and manures), the nation is decaying.

The decay of nations begins in the soil. A nation's strength, vitality, endurance and wealth are measured by its available soil fertility. Under the pressure of debts and fixed charges, aggravated by unprofitable prices for farm products, farmers, tenants and sharecroppers have been literally forced to abuse and exhaust the soil. Whenever farm income has decreased, the living standards of the masses of people have declined to deplorably low levels.

Mortgaged land that pays taxes and interest, and produces a living for farm families, is more likely to be further impoverished than improved or maintained. Debt-ridden farmers can take adequate care of their land only by working together under an effective national landuse and land conservation policy.

In the 1923-29 period, agriculture's gross income averaged more than 11 billion dollars a year. In 1930 it dropped to approximately 9 1-2 billions. In 1931 it was less than seven billions and in 1932 about 5 1-4 billions. In 1933 it rose to nearly 6 1-2 billions; in 1934 it increased to around 7 1-4 billions, and in 1935 it exceeded eight billion dollars.

Darden's Dairying System is Profitably Different

Buys Milkers, Raises Feed, Maintains Three Gallons Average Production, Sells Direct

By GEORGE H. DACY

FROM postal employee to record dairyman, from ownership of one cow to a herd of 200, from no private business whatsoever to management of a strikingly successful milk farm—that is the long jump which B. H. Darden, Norfolk County, Virginia has made in a short time.

Our countryside is speckled with practical dairy farms. But there are few like Darden's. He has modified methods to harmonize with his particular conditions. Various other southern dairymen would be better off if they followed Darden's trail and tuned their operations more closely to accord with their local conditions and opportunities.

This man Darden produces both Grade A and special baby milk of low bacterial content for the Norfolk market. He sells directly to the consumers and operates one of the most practical milk routes in Dixieland. His daily production corresponds to his stabilized market demand. That is why he buys all his cows instead of raising them. Service sires are absent on this farm. Darden buys springers from five to six weeks prior to freshening, milks the animals for a single lactation period and then sells them for beef. He drives his automobile some 12,000 miles annually through seven different states, inspecting and purchasing cows, a practically continuous quest. This unusual system of dairying management enables him to produce plenty of milk perpetually for his retail

Fat Cows For Beef

This dairyman is an excellent judge of cows, a good buyer and a seasoned seller. He feeds his cows scientifically and liberally. They are fat when their milk supply is exhausted. Mr. Darden has developed a special trade with the Kosher butchers of his locality. They pay him fancy prices for the fat "she stuff" which exactly suits their requirements. Thus Mr. Darden, by wise discriminating buying and organized selling is able to dispose of the fat cows for beef for only an average of from one-fifth to one-fourth less than their purchase price. Which illustrates the wisdom of supplying a special beef market such as he has developed and now caters to.

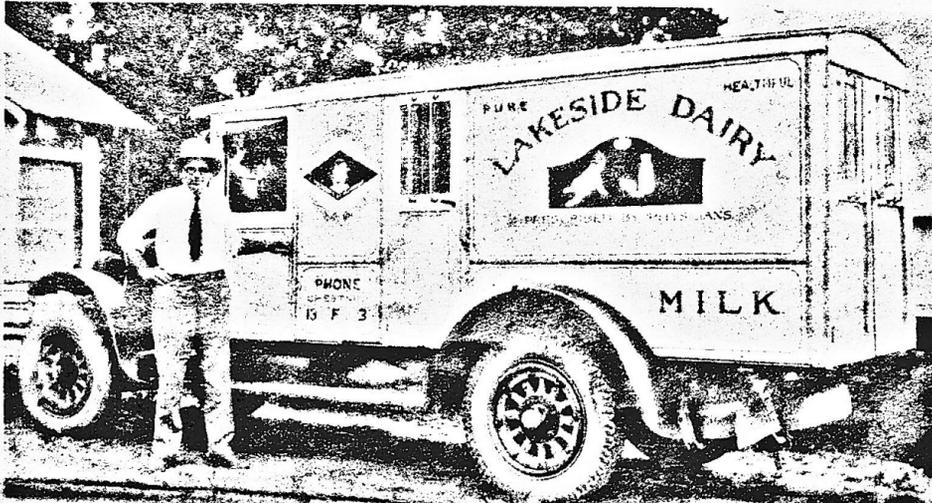
Darden bought his first cow in 1900 when he worked for Uncle Sam's post-office department. He sold the surplus milk above family needs. The neighborhood demand was always much greater than his supply. Gradually, he increased his suburban herd until he had 12 cows.

Buys All Milkers

Then a city ordinance forced him out into the country. He bought a small farm. That was the beginning of what has later grown into a big business. Mr.

Darden has been buying cows and farms from then until now. He now owns five adjoining farms aggregating 350 acres close to the core of the famous Norfolk trucking belt, one of America's profitable garden spots.

The Lakeside Dairy Farm milk retails for from 17 to 24 cents a quart. The whole milk has too great a market value to feed to heifer calves. Furthermore, Mr. Darden was cured of the heifer-raising itch years ago. He devoted a plentitude of feed, care and labor to the development of 55 as fine Holstein and Guernsey grade heifers as you will see in many days' travel. Time came to tuberculin test the youngsters. More than one-half of them reacted and had to be slaughtered. From that time on, Mr. Darden bought all his milkers from



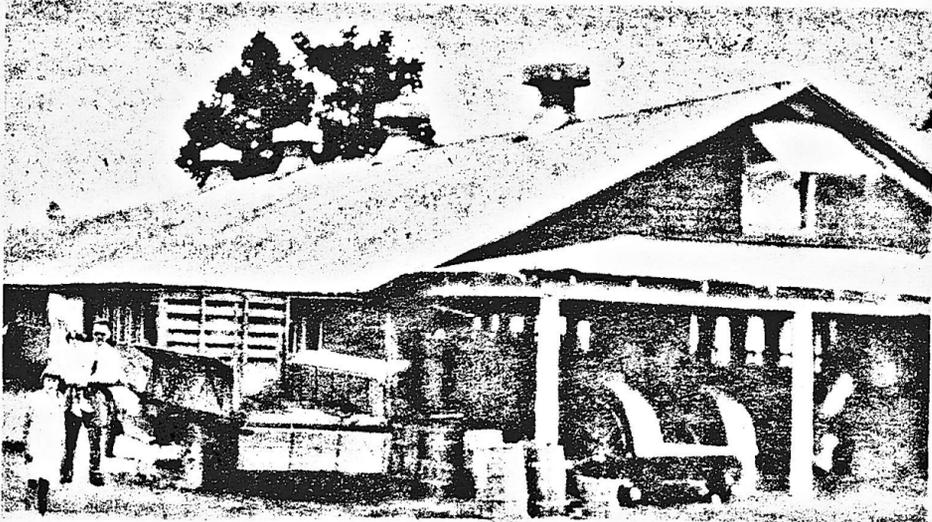
B. H. Darden and one of the motor trucks which delivers the perpetual milk flow from Lakeside farm.

known sources subject to 90-day retest. This system has minimized bovine tuberculosis losses and has provided a regular production of sanitary milk for his retail trade.

This resourceful Virginian buys from seven to ten carloads of grade Holsteins and Guernseys each year. Extensive rural travel and investigation have enabled him to ferret out centers where he can obtain cows that suit him. Farmers save their surplus animals each year until Darden comes to see them. Correspondents in different states keep him advised regarding supply and market conditions. You can't fool him on cows. He knows what he wants and will take nothing else. His sources of supply by experience have become acquainted with his likes, dislikes and actual needs. It took time, travel and educational efforts for Darden to perfect his dairy cow traffic system. The ends have aptly repaid the means, measures and methods.

Never Leave Stalls

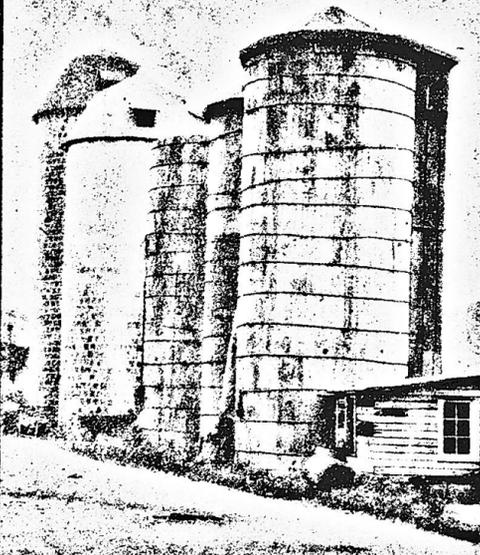
The calf crop leaves Lakeside Farm as soon as possible after birth. This is ordinarily four to five days after calving.



When 124 cows enter the stanchions in Darden's milking stable, they're in the stalls to stay during the entire lactation period.

First of the astonishing "sights" to flabbergust many visitors at Lakeside Dairy Farm, Norfolk County, Virginia, is this battery of five silos. Never empty, with a capacity of 900 tons, utilizing the products of six farms, they provide feed for the amazing "milk factory."

As soon as ensilage is depleted, the silo is refilled with whatever green crop is available. Shock corn, sprinkled with water to restore moisture during filling, is used if nothing else is at hand.



Local farmers buy the calves, paying an average of \$10 for heifers and considerably less for bull calves. Mr. Darden is now developing a unique contract system with neighboring farmers. He sells heifers to them on the understanding that they will give him first chance to buy back the same animals when about to freshen the second time. This scheme, in time, will provide a nearby supply

and doctor's prescription milk except the supply for the largest Norfolk hospital which is delivered in bulk. Two trucks deliver the milk daily. Mr. Darden's son maintains an office in Norfolk and devotes his time to marketing of the milk, collections, and similar duties.

Hold Customers

The Dardens have built up a permanent business on the sole slogan of "Integrity." They have kept faith with the public, have provided a healthful, clean, low bacterial milk which has won the commendation of Norfolk physicians. They have conducted their business in a business-like manner, which, however, has not been devoid from the use of the "milk of human kindness" when occasions for charity and good deeds have arisen.

Competitors say it is impossible to wean veteran customers away from the Lakeside escutcheon. Banteringly, these competitors explain: "Small wonder, for the Dardens are kith or kin to most of the old families in Norfolk County, and those that are not related to Mr. Darden are relatives of his wife."

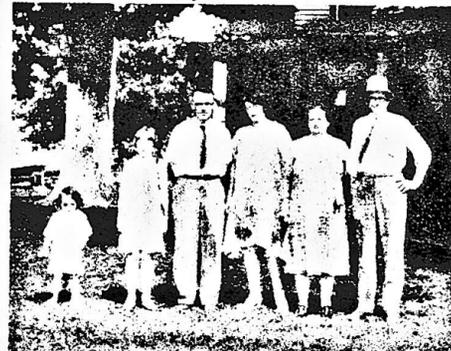
The Lakeside Dairy baby milk satisfies rigid certified milk requirements while the Grade A milk ranges from 15,000 to 40,000 in average bacteria per cubic centimeter. All the dairy products which Lakeside can produce are marketed at profitable prices. There is no carry-over.

System Really Works

To maintain the fixed milk quota needed to serve the clientele, cows are freshening almost constantly. That means replacement of dairy stock and sale of fat cows almost every week. A surplus of fat cows never accumulates. The special butcher trade is always waiting for the meat, blessed by Rabbis and marketed exclusively among Norfolk Jewish families. Mr. Darden buys springers in season so the animals will be acclimated and fully accustomed to new surroundings by the time their calves are dropped. He keeps the average production of the herd at about three gallons daily per cow. Animals that cannot hold that production pace are disposed of as soon as detected.

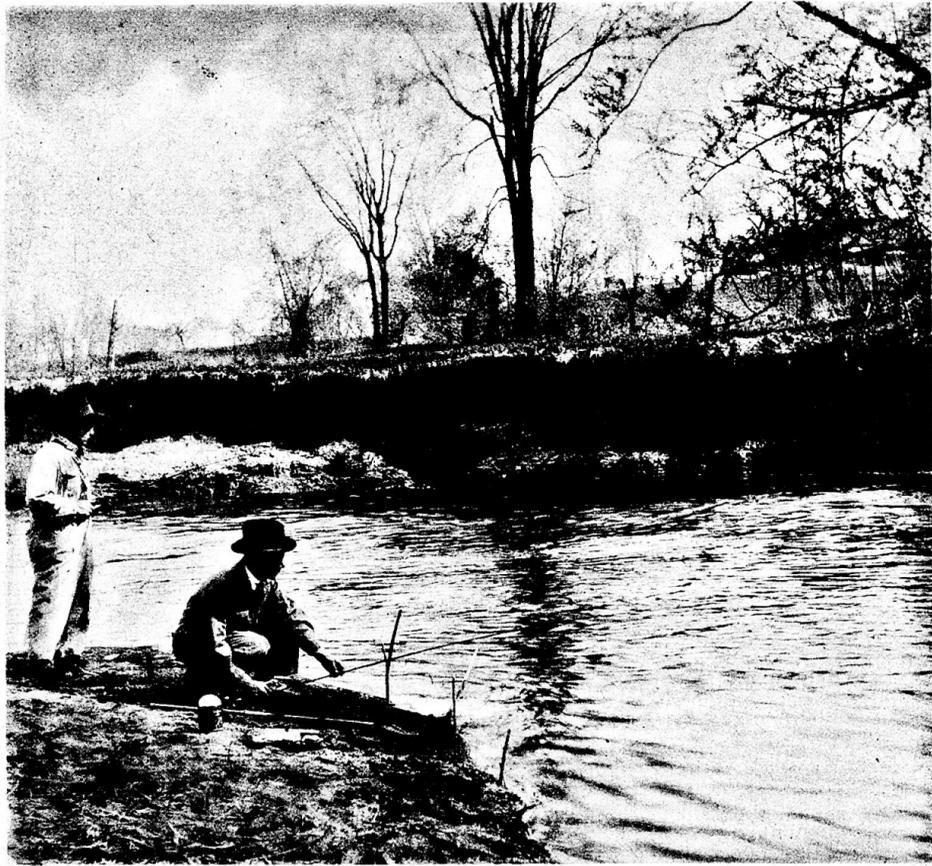
Darden's dairying may not suit you but it has worked out satisfactorily under his conditions. Using mind more and muscles less is a prescription which many producers may apply to their personal affairs to guide them from the darkness of red ink records into reaping net profits recorded permanently in blue.

Before leaving Lakeside Dairy Farm, meet the family.



Four hundred gallons of sanitary milk daily is the regular food crop of this establishment. The majority of this is bottled and sold as market, special baby,

STILL FISHING TIME'S HERE



These Tennessee farmer-fishermen are out after suckers.

By DICK WOOD

FOR every angler who fishes flies or casting lures, there are about six who merely still fish with natural live bait. Even many of the "sport fishermen" occasionally resort to the use of live bait.

There is an art to still fishing. Must be. When a boy, I've sat beside a companion who caught fish consistently on the same bait I was using, although my offering seemed to be entirely ignored. When my pal would yank out a fish, I would sneak my baited hook into the same hole. He would re-bait and drop his hook into the spot mine formerly occupied—and catch another whopper before I could get a bite. There must be a trick to it.

Still fishing is cheap sport. Two bits will buy the essentials of line, cork, lead sinkers and hooks. Even pieces of sheet lead, or bullets hammered flat will suffice for sinkers. The pole is cut on the river or creek bank—preferably a long river cane, well seasoned.

The still fisherman may devote all of his attention to one pole, or may tend two or three extra poles—stuck in the bank. Still fishing is usually done in deep holes, where big fish congregate. If the banks are shady and big boulders extend into the water, the situation is

ideal.

The most popular bait is earth worms, or night crawlers. These worms are secured by digging up the ground, by wetting the lawn and catching them at night or by extending an iron rod into the ground, charging it with electricity. Worms may be raised in a flower box, by pouring milk over the soil for food.

Live minnows are preferable for many game fish, particularly pike, bass, muskies. Crawfish are often used for trot-line baits for bass, catfish and drum. The helgramite is one of the best bass baits. For still fishing the peeled tail of a crawfish is unsurpassed, but is difficult to fasten on a hook. Liver and other stale meats are often used to lure catfish. Doughballs are the accepted carp bait. And don't let anybody tell you a carp can't put up a fight.

White ash grubs, crickets and grasshoppers are excellent bait for trout and such pan fish as croppies, rock bass, bream and perch. The green meadow frog is one sure-shot bait for large bass, pike and muskies.

Still fishing is not so sporty as casting or fly fishing, but it's a lot of fun for a million or two men and boys who measure their sport in fish poundage.

FRANK FARMER

Says --- By A. B. Bryan

A field in a fence is worth two in the open.

* * * *

The highest price for peas and soybeans comes from selling them to the soil.

* * * *

A dime's worth of garden seed is worth a dollar's worth of medicine.

* * * *

The cow that jumped over the moon was probably looking for better pastures.

* * * *

Better a few acres of rich land than a plantation of poor soil.

* * * *

Well arranged and well equipped farm buildings saves labor and that saves money.

* * * *

The farmer who fails to join in community betterment activities misses knowing his neighbors better.

* * * *

Garden, poultry, and dairy products have the same intrinsic value regardless of the money value of gold.

* * * *

Legumes for soil building are justified

by 300 years of successful use. That much testimony can't be disregarded.

* * * *

There are unfortunately still too many farmers who work too hard physically to think and plan their work to advantage.

* * * *

The more cows, hogs, and hens a farmer has the less he is disturbed about the prices for cotton and other cash crops.

* * * *

A thrifty farmer not only makes hay while the sun shines; he makes repairs while the rain falls.

* * * *

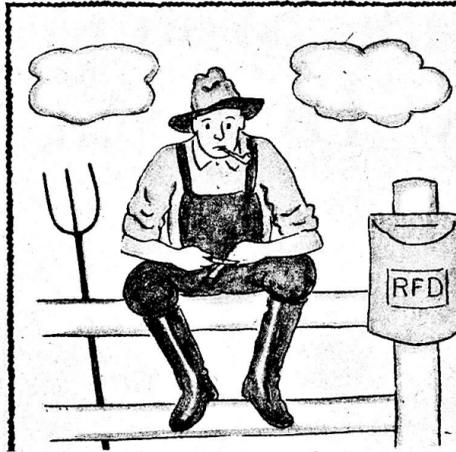
Much excellent quality farm produce brings disastrous prices because it is packed and sold mixed with low grade stuff.

* * * *

There's buried treasure in even the poorest backyard garden spot for those who choose to dig.

* * * *

My dozen dairy cows make me a bale of cotton every week—if you know what I mean.



JEST A-WHITTLIN' AN' A-THINKIN' BY PETE GETTYS

There's lots of good work going on at these Experiment Stations at the Agricultural Colleges. An improved strain of red raspberries that'll produce three times the crop of our common red raspberries—and ain't red raspberries good? Big saucer full with right rich cream!

And at another college they're tellin' tobacco growers how to starve to death tobacco worms that do so much damage to the roots of tobacco plants, and cuts down the yield per acre. They've been knowin' about these tobacco worms for a long time, but like the boll weevils in the cotton—all states weren't affected at the same time. The tobacco worms are hard to get rid of. The best way to do is to starve 'em by planting other crops the worms won't eat—about like getting rid of a fellow by stopping his pay.

And there's been all kinds of ways to try to determine the sex of baby chicks—none of 'em always for certain—but there's a feller who's succeeded in establishing a new breed of chickens that the males are hatched with black spots on the shanks of their legs and the fe-

males have no spots. That'll be a pretty handy thing for the big hatcheries—so they can sell you a lot of chicks and guarantee them 100 per cent pullets,

Looks like with all this breeding and experimenting and developing and improving that's going on there is big things in the future for us country fellers.

What kind of boys are these CCCers? How do they compare with the boys in the World War?

"Better in some respects; worse in others," writes Brig. Gen. H. L. Laubach who was in command of 80,500 boys at Camp Dix in 1933-34. "Physically," he says, "the CCC boys showed marked deterioration in legs and abdominal muscles. One word explains it—automobiles. Negro boys were stronger—they were used to walking."

"Chief defect," he said, "was inflammation of the middle ear—from bathing in sewage-polluted waters.

"Morally the boys were honest but cussed to much."

And here's something that will interest you about these CCC boys: "If they were Catholics they went to church. If Protestant they had no apparent religious tendency. A Protestant service held for 9,000 boys drew a congregation of 34."

BETWEEN THE ROWS

By ROY H. PARK

About the best definition of a farmer I've seen is the one given out by the University of Tennessee. According to it a farmer is—

A capitalist who labors—
A patriot who is asked to produce at a loss—

A man who has every element of nature to combat every day in the year—
A man who works eight hours twice a day—

A man who is a biologist, an economist, and a lot more "ists";

Who gives more and asks less than any other human being;

Who takes unto himself for his own sustenance and that of his family, those products that other people will not utilize;

Who is caricatured on the stage and in the daily press, but who comes nearer taking hold of any business and making a go of it than any other American alive or in captivity.

Just the same, farmers live a rather long life, especially in South Carolina, if one is to believe the story of Alfred Land, down in Greenwood.

Land wrote me that the other day he saw a gray-haired, long-bearded man sitting on a fence sobbing as though his heart would break. Sympathizing, he stopped, and asked:

"My friend, why do you weep so bitterly?"

"Pap whupped me—that's why," answered the sorrowful one as he wiped the tears out of his whiskers.

"Your pap whupped you?" repeated Land, dumfounded. "You mean your pap whipped you. Do you mean your father?"

"Yep—cause I throwed rocks at grandpap."

Theo Davis, of Zebulon, tells the story of the youngster who said a loud "doggone" and forthwith received a dime from his father on the promise that he wouldn't say it again.

"Say pop," said the boy a few min-



utes later, "I know another word that ought to be worth a half a dollar."

Relative to mention here last month of peculiar town names, Hoyle Broome, of Dobson, comes forward with the information that North Carolina, although once saved from the bottom in literacy only by South Carolina, has a Hamlet, Ivanhoe, Emerson, Ruskin, Cooper, Whittier, Rubyatt, Eldorado, and Milton.

In addition, the following classes are represented: Barber, Brewers, Butler, Carpenter, Farmer, Ranger, Mechanics, Cashiers, and Guide.

L. J. Taber, Master of the National Grange, tells the story of two stuttering blacksmiths in West Virginia. They had finished heating a piece of iron and one of them placed it on the anvil.

"H-h-h-h-h-h-hit it," he stuttered to his helper.

"W-wh-wh-wh-wh-wh-where?" asked the other.

"Ah, h-h-h-h-heck, we'll have to h-h-h-heat it again now."

By getting a group of co-eds to press their lipstick-coated lips on graph paper, a student in a midwestern college recently found—

The average lipstick coverage was .83 of an inch. This he multiplied by 32—the average number of applications per week—and this in turn was multiplied by the number of weeks in the year. The average annual lipstick coverage per co-ed was 9.68 square feet.

Pasture Improvement Pays Big Dividends

GOOD pasture is the foundation of a profitable livestock industry. It is well known among livestockmen that the cost of gains produced on grain is several times higher than the cost of gains produced on pasture. For that reason much of the profit on livestock farms is made while the animals are on pasture.

In spite of its importance, no farm crop has been more neglected than pastures. It does not seem to be realized that pastures, like any other crop, can produce only in proportion to the quality or fertility of the soil. It is a mistaken notion that pastures are sufficiently enriched by the droppings of cattle, and due to the fact that often no treatment is ever given to the soil to return some of the fertility that has been removed in the milk or animals sold, many pastures are rapidly being depleted of fertility and are getting poorer and poorer.

While in general, farmers have not given much thought to the pasture problem, many farmers in the last few years have noticed that their pastures are not supporting the number of cattle they formerly did. In a survey of pasture conditions in West Virginia in 1935 more than half the farmers in one area stated that their pastures were considerably poorer than they were five to ten years ago.

Bluegrass Disappears

A careful study of the kind of pasture on forty farms in this area showed that the bluegrass which was once considered the pride of the stock farmers of the area had largely disappeared. Less than 20 per cent of the vegetation in the pastures was bluegrass, and an average of 4.8 acres was required to pasture a 1,000-pound animal.



By Dr. W. H. Pierre,
W. Va. Agr. Exp. Sta.

It is evident that the livestock industry cannot long remain profitable in such an area, unless steps are taken to improve the pastures. As the soil gets poorer, the bluegrass disappears and weeds and poor native grasses come in. Not only do these

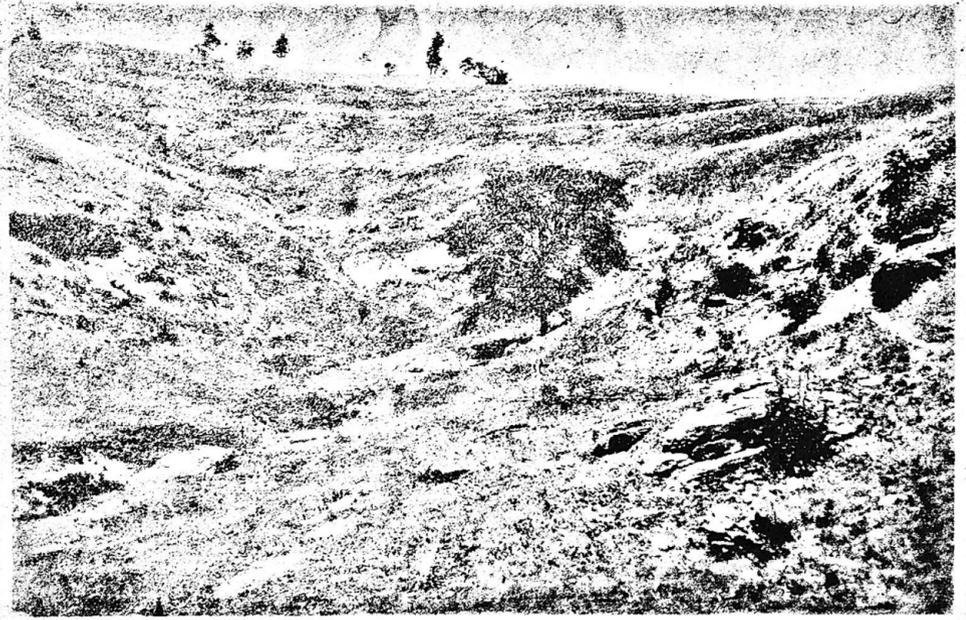
poor native grasses, such as poverty grass and broomsedge, produce less feed, and feed of poor quality, but the sod in many cases gets so thin the soil washes badly and the loss in fertility increases rapidly.

Unfortunately, in many cases, pastures get so poor due to the loss of fertility and top soil by erosion before anything is done that improvement may no longer be practicable. If our pastures are to remain our greatest agricultural asset, improvement must be undertaken before it is too late.

Experiments Point Way

For more than 12 years the West Virginia Agricultural Experiment Station has been conducting experiments to find out how pastures can be economically improved. These studies have been made on different kinds of soil in different parts of the state. Near Wardensville in Hardy county, at the Reymann Memorial Farms, a large field of 40 acres was divided and fenced into eight pastures which received different lime and fertilizer treatments in 1931 and 1933. These pastures were stocked with dairy cows the first year and with dairy heifers since that time. A careful record has been kept of the milk produced, the gains in weight of the animals, and the number of pasture days furnished by each pasture.

Two of the eight plots were untreated to serve as checks on results. All of the other plots were limed as shown to be



It's tough to be a sheep on a pasture like this, where shade trees along with the grass are scarce. A badly overgrazed condition is evident and the top soil is thinning.

needed by a soil test, and 500 pounds of 20 per cent superphosphate applied per acre in 1931 and 1933. In addition, four plots had 100 pounds of muriate of potash per acre at both treatments. Two of these four plots also had 200 pounds of nitrate of soda applied each year—half in April and half in July.

The area receiving lime and superphosphate only furnished 131 days of pasture per acre as compared to 80 days for the check plots, and the animals gained 204 pounds on an acre basis as compared to 140 1-2 pounds on the untreated area. The pasture on the area receiving this treatment produced an average of 1,331 pounds of digestible nutrients per acre as compared to 854 pounds for the untreated land. On two plots receiving lime, phosphorus, and potash, the number of days of pasture provided was increased to 142 1-2, the average animal gain per acre to 257 1-2 pounds, and the average number of pounds of digestible nutrients per acre to 1,521 pounds. The addition of nitrogen to the lime, phosphorus, and potash, on the other two plots further increased the number of days of pasture provided to 169, the average gain of the animals to 267 pounds, and the average amount of digestible nutrients produced per acre to 1,743 pounds.

These results together with similar results obtained in other pasture experiments point the way to a sound pasture improvement program.

Phosphorus, Lime Needed

Phosphorus has been found to be the greatest need of pasture soils in West Virginia with lime a close second. This condition is not surprising, because there has been a large loss of lime and phosphorus from pasture soil through the sale of milk animals. Since in most cases lime and phosphorus are both necessary, application of one without the other does not give nearly as great or as economical returns as when both are applied together. The application of one or the other by itself may be of little value.

In experiments, the use of lime alone on pastures gave only relatively small benefits, but the combination of lime and superphosphate increased yields from 38 per cent on one of the better soils to more than 100 per cent (more than doubling the yield) on a less fertile soil.

Manure is very beneficial in improving pastures. Unfortunately, manure produced on the farm is usually all needed for the crop land. Since manure is low in phosphorus it should be supplemented with about 40 pounds of superphosphate per ton when applied to pastures.

Benefits Last Years

Increased yield is only one benefit that results from pasture fertilization and liming. If applications of superphosphate and lime merely increased the growth, little would be gained. The main benefit from applying lime and phosphorus to pasture land is that the fertility of the soil is increased so that bluegrass and clover can come back into the sod, fill up the bare spaces, and crowd out weeds and poor native grasses.

The second year after an experiment was started on poor Dekalb soil at Morgantown it was found that the plots which received lime and superphosphate contained 67 per cent of bluegrass and clover in the pasture sod as compared to four per cent in the untreated plots. Not only does bluegrass and clover produce more growth than weeds and poor native grasses but the quality of the herbage is far superior.

Saving In Barn Feeding

The average content of protein in the herbage from the untreated pasture plots in 1932 and 1933 was 12.3 per cent, while herbage from plots on which lime and superphosphate were applied contained 18.8 per cent protein. The total protein produced in the herbage was 66 pounds per acre on untreated plots and 321 pounds on treated plots.

Bluegrass makes an earlier growth in the Spring than poor native grasses, so improving pastures by applying lime and superphosphate provides earlier grazing. In many cases cattle can be turned on improved pastures ten days to two weeks earlier in the Spring and kept on later in the Fall than on untreated pastures. Pasture improvement not only increases carrying capacity and provides better quality grass, but it is also a means to a longer grazing season and a large saving in barn feeding.

Improvement Is Practical

There is little doubt that pasture improvement is practical. It is not practical or economical to attempt to improve all pasture land. Some is too steep for improvement to be economical. Some is too droughty or has lost so much of its surface by erosion it is now too late to attempt improvement.

Such areas should be protected from further washing and gullying by fencing them off from the rest of the pasture and putting them back in trees. It is a conservative estimate, that on at least half of the pasture land in West Virginia and nearby states the judicious use of lime and superphosphate would be economical wherever the additional grass produced can be utilized. In many cases such treatment will mean an investment of from \$4 to \$8 an acre, but it is an investment that will bring high returns.

Some farmers feel they cannot afford to spend this money on their pastures. Many farmers, however, do not hesitate to spend money for high-priced feed or for renting of additional pasture. If part of this money were spent for superphosphate and lime, the feed bill would be greatly reduced and within two or three years it would no longer be necessary to rent additional pasture land. At the same time, the money spent by the farmer in this manner would be adding to the value of his land and would keep his pastures from getting so poor they could no longer be improved economically.

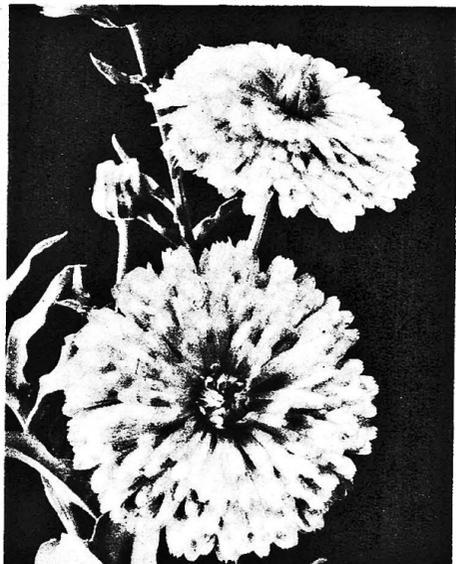
It should be remembered that the effect of treatment often shows up for many years. Once a good bluegrass and clover sod is established, it can be kept in good condition at a very low cost.



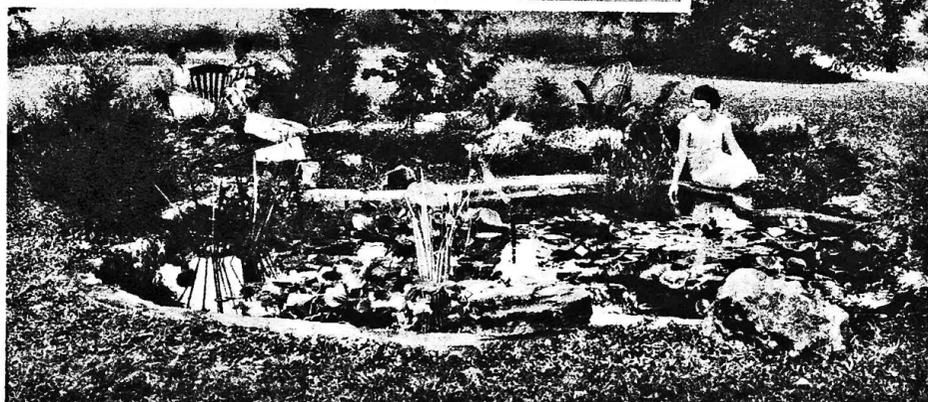
The dairy herd, above, and the Herefords, below, are provided with pasturage which results from the experiments described in Dr. Pierre's article. The beef cattle were photographed on the farm of J. D. McReynolds, Harrison County, W. Va.



Homemaker's Pages



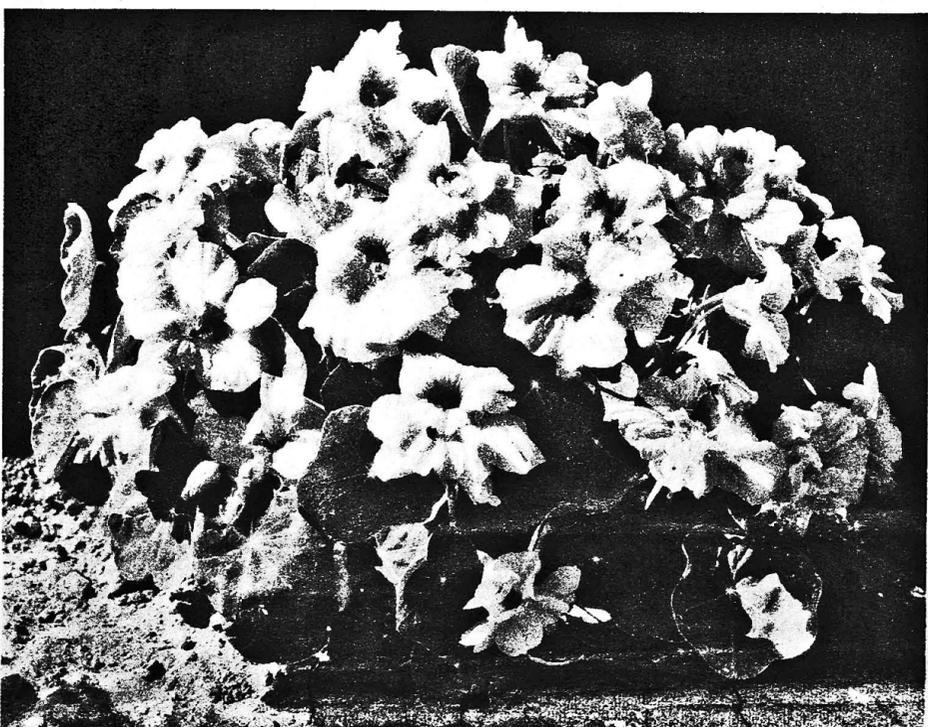
Calendula Sunshine



Miss Dorothy Hines, Knox County, Tennessee, sets an example in farm yard improvement for Better Homes Week April 26 to May 2. This lily pool won Dorothy (in background with Miss Inez Lovelace, left, home demonstration agent), first prize in a 4-H Contest. Her sister Joan, is beside the pool.



Flaming Velvet Petunia



GOLDEN GLOBE NASTURTIUM

YOU'LL like the fragrant nasturtium Golden Globe, new addition to the Glean family, first named color variety of the Gem type and winner of a 1936 All-America award of merit.

Uniformly dwarf and compact, it suggests many garden uses. Its deep golden yellow has a warm and mellow appearance, making it welcome alone or in company with other colors.

GARDEN FAVORITES

ATRIUMVERATE of flowery summer beauty peeks at you out of the left side of this page. At the top, the dazzling Calendula Sunshine flaunts her chrysanthemum-shaped blossoms. In most climates, this flower blooms all Summer, if fading blossoms are removed before seed pods form. Next is the ever-popular Summer garden standby, the Flaming Velvet Petunia. Below, the Zinnia of today, ranging from pompon to double flower nods an Easter greeting.

Nasturtiums will grow almost anywhere, with little attention. They will respond and produce larger growths when well supplied with water. Dwarfs should be planted on poor soil as they have a tendency to run to leaves at the expense of bloom on richer soils.

A charming feature of the nasturtium is the mingling of flowers and leaves.

They make showy beds. Dwarf types are good edgings. The tall ones are really sprawling in habit, but may be easily trained to climb a trellis or wall fitted with wire or lattice work by tying the vines.



Zinnias

THEY MADE THEIR OWN EASTER BONNETS

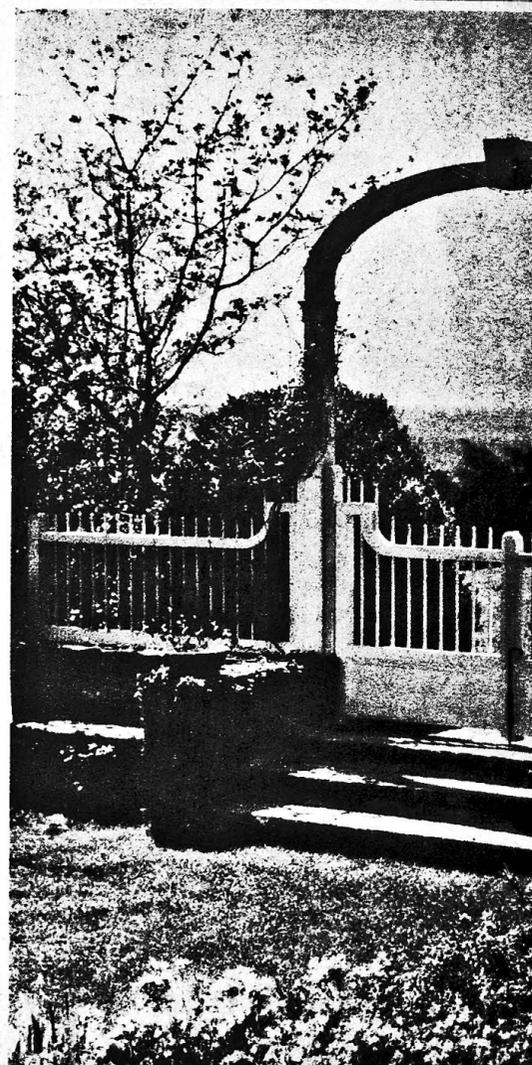


By LENNIE HOLLEN LAND

HOME millinery project meetings are scheduled for twenty-four Kentucky counties this Spring. Last year, the popular project, directed by Miss Iris Davenport, University of Kentucky clothing specialist, resulted in new, remodeled and renovated hats in twenty-three counties valued at \$6,228.50.

Hats were made to match or harmonize with dresses and suits, often at no additional cost. Old hats of fine material were reshaped.

In some counties, hat shows were given. In Boyle county, 23 women (see picture) took part in a millinery parade. A Madison county woman made or remodeled 15 hats for herself, family and neighbors.



In tranquil, stately color, this Virginia yard landscaped this year. Such lovely touches to the farmsteads of the country and are a beautification.

SHORT STEPS

—Virginia Lee—

When removing breakable baking dishes from the oven, use dry cloth. A damp cloth is liable to crack the dish. When soaking this type of baking dish, use warm water.

In preparing dressed eggs, it is best to use eggs a day or two old as the shells can be removed much easier than from very fresh eggs.

Salad greens are much better if carefully washed for several hours before being used; then wrap in small bag and place in box to crisp.

For bathroom or sleeping porch windows, paint the screen with aluminum. This gives absolute privacy.

To melt marshmallows for candy or cake, place in a double boiler overboiling water.

A pinch of salt added to very sour fruits while cooking will lessen the amount of sugar required to sweeten them.

Combine left over squash with left over potatoes and one egg, or cracker crumbs and eggs. Make into patties and fry.

For a new "Special" at your next tea try sprinkling grated cheese over popped corn and heat for about five minutes in hot oven.

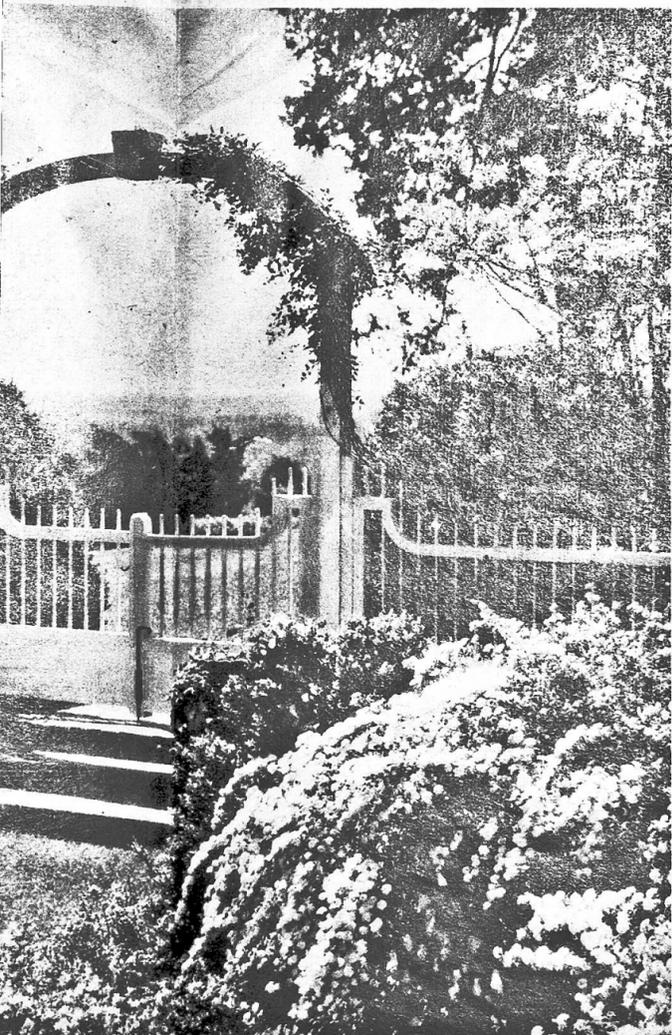
In pressing seams in silk or woolen garments to make them look tailored, take a medicine dropper and run along the seams. This dampens it evenly.

Color plays an important part in tempting appetites. For example, tomatoes and beets in the same menu appeal less than say, spinach and beets. In making slaw mix diced beets or beet juice for an interesting looking salad.

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You'll be the Grandest Lady
In that Easter Parade

Patterns for these Distinctive Spring Styles may be obtained from The Pattern Department of THE STATE FARMER, by sending 25 cents with the coupon below.

This Virginia garden gate is typical of the improved farm home with lovely touches, aided by Dame Nature's hand, give new beauty and are a direct result of a national rural interest in home

PS

baking dishes
A damp cloth
soaking this
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is best to use
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MARGARET SULLAVAN

Pattern No. H-3126

Not too many tricks to make you tire of this sport dress after a few donnings, because this dress has lines that will make you cut a perfect "figure."

The four patch pockets carry out the deep point collar of the collar and the tricky arrangement of bakelite buttons which is amazingly intriguing and new. The wide flapping collar schemingly borrowed from little brother's sport blouse suggest a mannish line but not too extreme because it is overlaid with another collar of contrasting color which is more than fascinating and feminine hinting. A set of cuffs to match are casually turned back into wide bands. Select a color which is flattering to your personality and carry it out in a coarsely woven wool, or a summer tweed.

Pattern available in sizes 12, 14, 16, 18 and 20. Corresponding bust measurements 30, 32, 34, 36 and 38. Size 14 (32) requires 2 3/4 yards of 54-inch material, plus 1/2 yard 36-inch contrast.



TWO-PIECE FROCK
Pattern 3098

Trim, slim and anything but prim, this striking two-piece frock is perfect for day time wear in town from now on throughout the season. The unusual and seemingly intricate detail of the printed top is surprisingly simple in construction. The model pictured is made of washable rayon crepe, the navy background of the broken-circle print blouse matching the solid color of the fitted skirt. This material is easy to handle in sewing and does not pull away at the seams in wear.

Pattern designed for sizes 12, 14, 16, 18, 20, 30, 32, 34, 36, 38, 40 and 42. Corresponding bust measurements 30, 32, 34, 36, 38, 40 and 42. Size 14 (32) requires 2 1/4 yards of 39-inch fabric for the blouse and 2 yards for the skirt. Fabric: Chulla crepe (Marvlo Mills) about \$1 per yard.



WITH WHITE ACCENTS
Pattern H-3136

White accents for Spring are high fashion this season and unusually smart and becoming when used on the new tailored dress achieves distinction through use of a wide under-collar and under-cuffs in white crepe, matching the square composition buttons and belt buckle.

Pattern available in sizes 12, 14, 16, 18 and 20. Corresponding bust measurements 30, 32, 34, and 36. Size 14 requires just 4 yards of 39-inch fabric plus 2-3 yard contrast.

Fabric: Nu-Clipper crepe (Arthur Betz) about \$1 per yard.

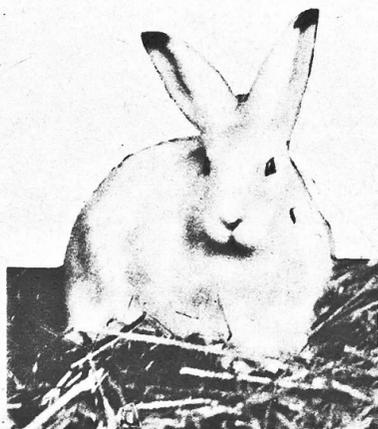


PLAYTIME FROCK
Pattern No. H-3123

This little Miss Muffett is Betty Holt, wearing a sweet little daytime or playtime frock which you can make for your own Miss Muffett in less than a jiffy. It has just those features you always look for in little sister frocks.

There is a button trim all the way down the front, to simulate the styling of your own spring frock, but the buttons open only to the waist. If you wish, of course, you can open the frock all the way and use the buttons accordingly.

Pattern designed for sizes 2, 4, 6, 8 and 10. Size 4 requires 1 1/2 yards of 35-inch fabric plus 1-3 yard contrast.



Patterns of dresses pictured above 25c. Please remit in coin or stamps, Give your name, address, pattern number and size. Mail order to Pattern Department, State Farmer Section, Fletcher, N. C. A 32-page Spring and Summer Pattern Book is available at 15c each, or if bought in combination with pattern, 35c for pattern and book.

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\$509 an Acre *Netted* from Delaware Strawberry Plot.

By CLAYTON A. BUNTING
Selbyville, Sussex County, Delaware

THE strawberry industry of the eastern section of the United States is wide, varied and interesting. It is also in too many instances conducted on an all too slipshod basis, resulting in little, if any profit, rather than the rather handsome \$509 per acre net we realized last year from a rather large test plot of the variety Dorsett being grown for market.



On the Del Mar Va Peninsula, strawberries have declined somewhat as a crop during the past few years as a result of the wearing out of strains rather than from the non-existence of good productive varieties. It remained for the United States Department of Agriculture to present to growers Dorsett and Fairfax, the two finest strawberries for any purpose in our generation. Not until last season under the test of market production did I arrive at a decision as to the better of the two—the Dorsett. So close are the two varieties it is easily possible for one to lead, depending on the section of the country. The fruiting season of both varieties extends over a good three weeks or longer. It is necessary to pick fruit from the plants about ten times during the season.

Market Expansion Seen

Prior to the introduction of these two varieties, varieties highly acid in content were grown to assure shipping quality. Flavor to distant markets was sacrificed in favor of shipping quality. Both varieties have low-acid content, yet ship well.

Intensive cultivation of land prior to its receiving a planting of strawberries is necessary to realize a weed-free strawberry field the following year. It is impossible to grow a bumper crop of berries amidst a bumper crop of weeds. Most any type of well drained soil can be made almost weed and grass free over a period of three years of intensive cultivation to any other crop. For best results, plan ahead for handling this crop. Set your plants in this type of soil. Give them frequent cultivation to keep plants free from other vegetation.

Plant Feeding

During the war years, due to scarcity of potash, this element became a forgotten product for growing farm crops. Many strawberry growers located in poultry raising sections, use exclusively the almost free chicken manure. This manure contains lots of nitrogen in ammonia form and lacks potash, a necessity to successful strawberry culture. An application of potash, ten pounds to every 100 yards of row should be made in September. Apply this along the side of the row, being careful not to let any hit the plants, particularly if they are damp. Cultivate in immediately. This will result in a heavier root system

Proper procedure of the top dressing of strawberry plants is to apply a fertilizer analyzing 4 per cent ammonia, 8 per cent phosphoric acid and 10 per cent potash. Instead of being broadcast in the strawberry rows in April, this application should preferably be made in January or February, which gives the potash ample time to act. Potash disseminates slowly and when applied in April has little value to a crop which ripens in May and early June in most of the sections of the East and Central West. With the more balanced plant food, you will get a more moderate leafage which will admit both light and air, necessary to the good development of fruit. The potash will also result in a tougher foliage less likely to

suffer from dry periods and will add firmness and color to the fruit. A more sturdy root system will develop from the addition of potash.

Mulching Profitable

Mulching with wheat straw, salt hay or pine needles, will be found profitable and is of vital importance. It will keep the soil cool and will prevent splashing of sand or other soil on the fruit from hard showers.

The package in which the fruit is shipped to market is important. It has been customary for years to ship in a crate containing 32 to 60 quarts. The practical package contains 16 to 24 quarts. The smaller package is much easier to handle and less subject to shake-up and damage. Further, the trade that

wants fancy fruit prefers a smaller package.

I used 24-quart crates when marketing Dorsett and Fairfax last spring and labeled each crate with an attractive label in color. This served as a trademark and held customers throughout the season. The "would-be" new customers were unable to get our special mark, the result being that prices held remarkably well even in the face of general market decline.

The future holds much for the market grower of strawberries, if he will do the little important things and grow the right varieties, and right varieties at our place now means Dorsett and Fairfax after a most profitable experience growing them.

Camera Glimpses in the "Old Dominion" State

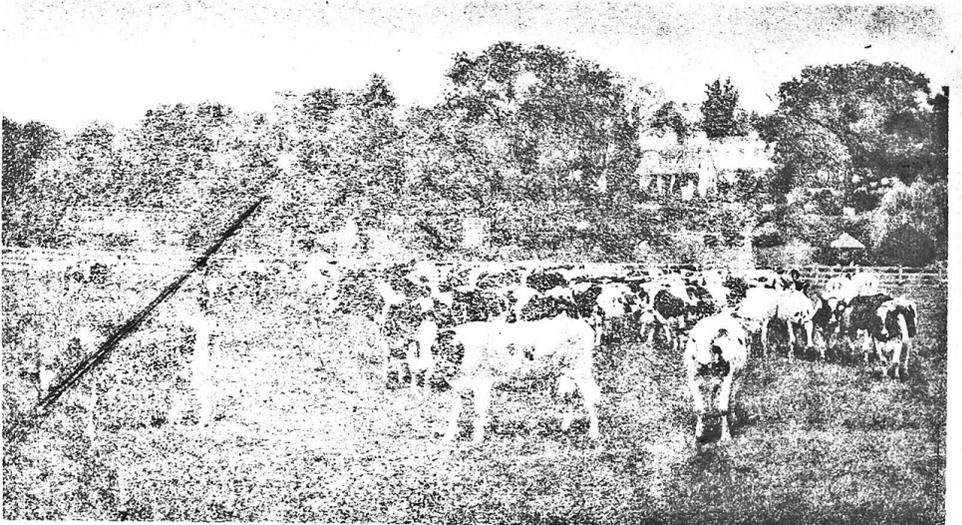


When it's apple blossom time in the beautiful Shenandoah Valley of Virginia thousands of tourists will be here for the "Apple Blossom Festival" at Winchester. The date for the opening of the famous festival is announced some ten days before the colorful event is staged. Left, above, are apple blossoms near Bedford. Above, these young Virginians and their pony have their own festival.

(Virginia State C. of C. photos)



Constantly learning by doing, these Virginia 4-H Club boys (above) learn to survey through the assistance of their county farm agent. The state's 1,293 clubs last year had an enrollment of more than 32,702 members. Gordon A. Elean, state boys' club agent assures they're still growing this year. Right, 4-H'ers mix compost for a cold frame.



Prominent among Holstein-Friesian dairy herds in Virginia is the Meadow Farms in Orange County. Pastures are considered a crop. (Below).

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Agricultural Brevities

Prices

Livestock and livestock products brought 39 per cent better prices in 1935 than in 1934 and they were 61 per cent higher than in 1933, according to the Bureau of Agricultural Economics.

Wool was the one exception to the general trend. It was off 11 per cent last year. Outstanding gains were made in prices of hogs and cattle and calves advanced sharply in price. Beef cattle averaged \$6.21 as compared with \$4.16 in 1934.

Of the dairy products, butter fat showed the greatest gain, advancing from 22.7 cents per pound to 28.1 cents per pound.

The opening month of 1936 gave farmers the highest cash income for any January in five years. The January income totalled \$566,000,000. Gains in income from sales of farm products this January were reported for grains, cotton, cottonseed, fruits, vegetables, meat animals, dairy products, poultry and eggs.

* * *

Grass

In all sections of the country, farmers this Spring are reseeding abandoned fields to grasses or legumes to prevent soil washing and blowing and to supply feed for livestock.

The Soil Conservation Service is assisting by testing the adaptability of many native grasses and approximately 400 grasses of foreign origin.

The Service is testing these grasses for effectiveness in erosion control, suitability to different soil types, drought resistance and handling characteristics.

* * *

Turkeys

What is said to be the first turkey egg and the first turkey poult shows ever held in America will be staged by the Texas Centennial Exposition at Dallas, June 6 to 25.

Exhibits in the turkey division will include the complete story of the evolution of the turkey, from egg to grown bird, dressed and ready for the market.

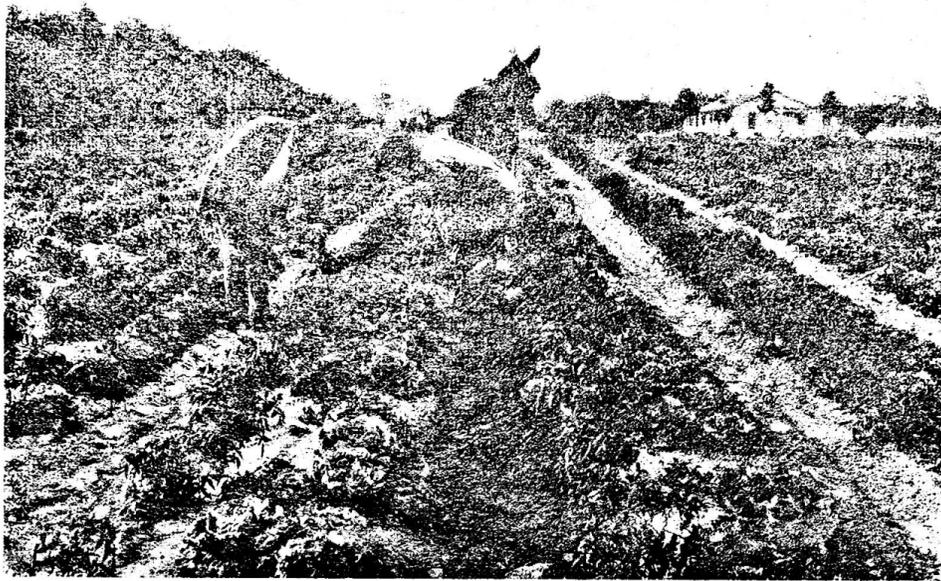
The turkey show will be held in conjunction with poultry, pigeon and rabbit shows.

* * *

China

Acreage of flue-cured tobacco in China this year will probably exceed last year's, according to the Bureau of Agricultural Economics. Recent improvements in business conditions have improved the cigarette trade in China, but despite the increased cigarette business, there has been a steady decline in the proportion of American, and an increase in the proportion of Chinese flue-cured leaf used.

Increased Chinese demand for foreign cotton is in prospect according to reports from Shanghai. The Chinese crop in 1935 was about 25 per cent smaller than in 1934. Mill consumption is expected to be about the same as for 1934-35.



As the 1936 truck season gets underway, county agents are busy assisting farmers throughout the South. In this case, the extension worker inspects a field of tomatoes and lettuce, intercropped, near Castle Hayne, N. C.

India

A cotton crop of 4,752,000 bales of 478 pounds each from 25,025,000 acres is the official estimate in India for this year. This represents an increase of about 21 per cent as compared with the 1934-35 crop. The production trend in India has been upward for several years.

Indian cotton is the shortest staple in commercial use, most of the crop ranging from 3-8 to 7-8 inch. The Indian government has been trying to increase length of the average staple to make it more nearly comparable with other cottons sold in world markets. Should these efforts be successful, it will be of special interest to American growers whose cotton is largely in the 7-8 to one-inch class.

* * *

Argentina

The largest corn crop in the history of Argentina is the report from Buenos Aires. The all time record embraces an area of 18,854,000 acres—an increase of 8.6 per cent over last year. The corn area in Argentina has been increasing steadily for a number of years.

* * *

Japan

Seriously concerned over the condition of agriculture in Japan, the Japanese government has enacted measures to prevent a further fall in agricultural prices; increase the purchasing power of farmers and ease the burden of farm indebtedness.

Difficulties for Japanese farmers have steadily increased since the World War. Some of the factors accounting for the depression in Japanese agriculture are: The sharp decline in world prices; a heavy farm debt and tax burden; the fact that the average farm unit is only 2.5 acres; inability to expand further

the area of land under cultivation; a rural population of about 30,000,000 people on a cultivated area of less than 15,000,000 acres; high land prices and rent, and specialization on rice and silk as chief cash crops.

Germany

Germany has adopted a program aimed at increased production of fruit in order to reduce the nation's dependence on foreign supplies, according to a report from the agricultural attache in Berlin.

The government is subsidizing fruit tree planting. A subsidy is given to growers, to the extent of 30 per cent of price of trees, who plant a minimum of ten trees. Plantings are limited to a maximum of five basic varieties for each fruit in a particular growing area.

* * *

Winter

The Winter of 1935-36 broke all time weather records in almost every part of the country. North Dakota claims the record of being the coldest state with temperatures registered at 50 degrees below zero.

In only three states—California, Nevada and Arizona—was the weather this Winter warmer than normal. Unusually heavy snowfalls occurred in the East, the North Central states and the Northern Rocky Mountain area, while the South had more rain than usual. The outlook for soil moisture and for water for irrigation is unusually favorable.



Are you smart? Here's a puzzle that will test your wits. The Scrambled Letters below, when properly re-arranged, will spell the name of a Famous Movie Star.

Probably you know the names of most of the Famous Movie Stars, but just to refresh your memory we mention a few: Greta Garbo, John Gilbert, Joan Crawford, Shirley Temple, Wallace Beery, Clark Gable, Jean Harlow, Dick Powell, Warner Baxter and Kay Francis.

YES-RIP-MELT-LEH



These scrambled letters will spell the name of a Famous Movie Star when they are properly re-arranged. Start switching the letters around; see if you can figure it out. If your answer is correct, you will receive at once, A LARGE SIZE PICTURE OF THIS MOVIE STAR FREE!—beautifully colored and suitable for framing—and the opportunity to win a 1936 CHEVROLET SEDAN or the cash. EVERYONE WINS A PRIZE.

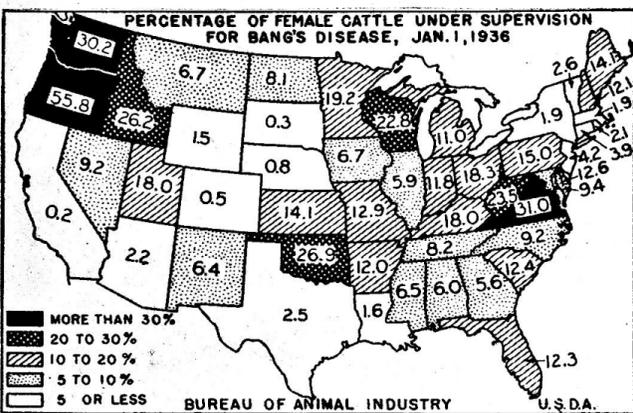
Be The Big Winner. First Prize Winner gets Chevrolet Sedan; 2nd, \$300 in Cash; 3rd, \$200 in Cash; 4th, \$100 in Cash; and many other Cash Prizes. Duplicate prizes in case of ties.

SEND NO MONEY! Just your answer to the Movie Scramble above. USE THE COUPON. HURRY! DON'T DELAY!

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My answer
Name
Street
City State
Send me the Free Picture

Interest Grows in Bang's Control



Cattle owners in nearly all states show increasing interest in testing their herds for Bang's disease. The U. S. Department of Agriculture's map, as of Jan. 1, 1936, shows the extent of official supervision of cattle herds in the combined efforts of the Government and State to combat the malady. The map shows that in seven states the percentage of cattle under supervision exceeds 20 per cent and in only twelve states is the proportion five per cent or less.

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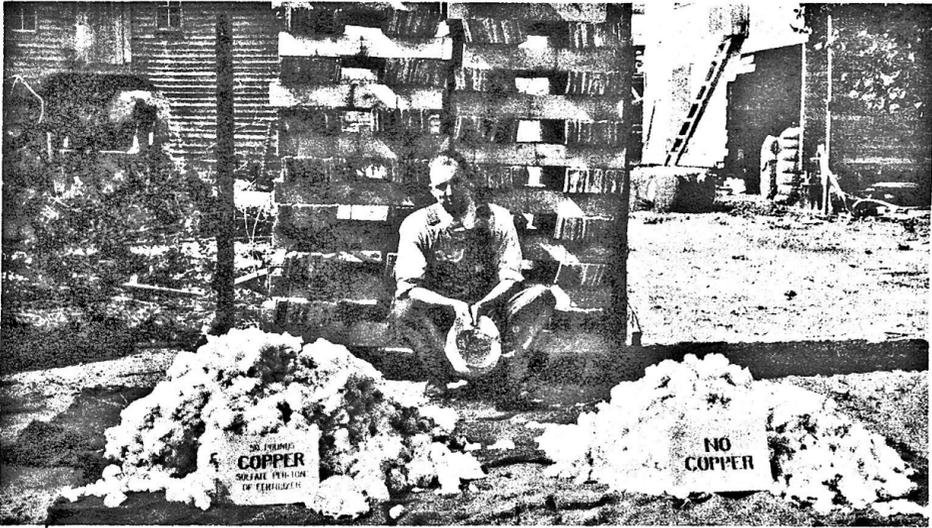
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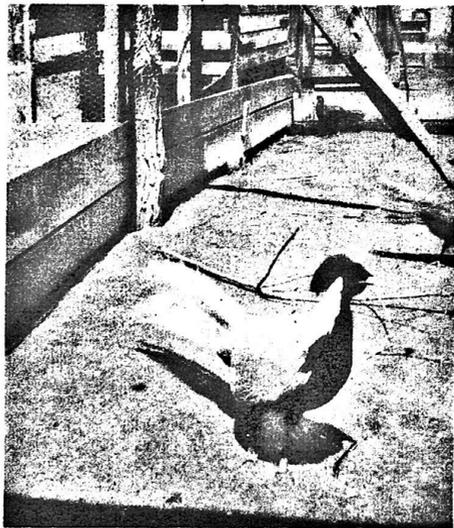
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Try my new VENUS CREAM Method to increase bust measure 1 to 4 ins. Wonderful for ugly, sagging lines, scrawny neck and arms, undeveloped forms, wrinkles and crowfeet. To convince you I will send you a 10-day treatment which you may try under \$25. Money back if you are not amazed with results!
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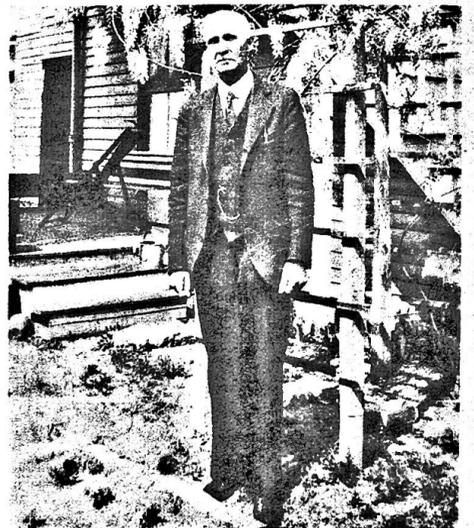
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Send for FREE TRIAL of NOXALCO, a guaranteed harmless home treatment. Can be given secretly in food or drink to anyone who drinks or craves Whiskey, Beer, Gin, Wine, etc. Your request for Free Trial brings trial supply by return mail and full \$200 treatment which you may try under 30 day refund guarantee at our risk. ARLEE CO. H-56 BALTIMORE, MD.



W. F. Gore, Clinton, N. C., exhibits cotton harvested from test plantings which were treated and untreated. Treated cotton on his farm showed an increased yield of 25.9 per cent over the untreated planting.



Nearly all white, the Silver cock presents a handsome sight with vest and collar of iridescent blue.



Dr. Fred E. Steere, physician and druggist, Claremont, Va., is a pioneer in breeding fancy pheasant strains.

Copper Aids Delaware Crops

By J. H. SKINNER, Jr.

BECAUSE the part played by the so-called "minor elements," including copper, manganese, zinc, boron, and iodine, in soil production is receiving growing attention from soil scientists, the Agricultural Experiment Station at the University of Delaware was chosen by the Crop Protection Institute in 1933 to conduct research in the use of copper as a plant nutrient and soil amendment.

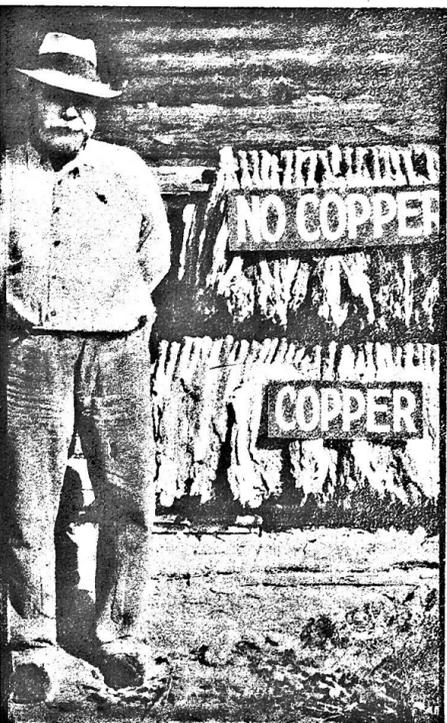
This work has been progressing since then under the supervision of Dr. T. F. Manns, of the Delaware Experiment Station. Much of the early work was done by Raymond Russell, now in California, while Walter L. Churchman has been conducting the more recent research.

In 1933, Dr. Manns and Mr. Russell, working with Delaware soils, obtained favorable results on both corn and wheat by use of the Neubauer method. This consisted of planting samples in large earthenware pots and fertilizing different pots with varying amounts of the copper sulphate mixture. Field experiments that year also showed increased yields on corn, potatoes, and other crops when varying amounts of fertilizer containing 50 pounds of copper sulphate per ton were used.

Scattered Test Plots

The work progressed during the next two years, with special emphasis being placed on research on cotton and tobacco yields. In April, 1935, Mr. Churchman was placed in charge of the field work. His methods included planting test plots in sections of North Carolina, South Carolina and Virginia. Each test plot consisted of several 100 yard rows. The first four were fertilized normally and the next four were given the same fertilizer plus copper sulphate which had been mixed with the fertilizer in the ratio of 50 pounds per ton. The next four

J. H. Wood, Skipworth, Va., found the treated tobacco worth \$18.67 per acre more than the untreated.



rows received no copper sulphate, and so on. At harvest time, the two center rows in each group were harvested, stored, handled, and sold separately.

While the handling methods and the curing methods, in the case of tobacco, were identical, the produce of each group of rows was kept intact and was marked.

Results of the tests showed in 1935 an average increase of 43.9 per cent in yield for tobacco with a 10.39 per cent increase in quality and a 54.29 per cent increase in farm value.

Cotton Yields Increased

Cotton yields were increased by an average of 17.9 per cent while yields of corn showed an average increase of 11.35 per cent. Although the experimental work with other crops, has, as yet, been according to Dr. Manns, too limited to

yet be of much value. Copper sulphate treatment increased the yields among sweet corn, squash, and tomatoes.

The copper sulphate used in the experiments was in snow form, mixed with fertilizer at the rate of five pounds per each 200 pound bag of fertilizer. No special fertilizer was chosen, but the mixture normally used for the land on which the test was to be conducted was used in the experiment.

According to Mr. Churchman, while the experimental work with copper sulphate has, to date, shown favorable results, much work needs to be done before recommendations can be made which will cover all types of crops raised in the Middle Atlantic States.

Virginia Cattle Security for Loans



THE secretary-treasurer of the Wytheville Production Credit Association inspects beef cattle on the farm of G. B. Simmerman of Max Meadows, Virginia. The cattle furnished security for a loan from the Wytheville association, which is one of the 14 associations serving the state.

Virginia production credit associations loaned farmers over \$2,000,000 last year to purchase livestock, fertilizer, seed, supplies and equipment, and are now in the midst of another busy season making loans for this year's crops.

Production credit officials explain that the difference between the 5 per cent interest rate on cash loans and the time-credit charges for fertilizers and farm supplies will often mean the difference between profit and loss on a major crop or dairy herd.

Most loans from production credit associations are made for periods of less than one year with interest charged for the actual number of months the money is outstanding, and are secured by crops and livestock.

Virginia farmers have bought many horses during the past two years to make up for workstock lost and not replaced during the depression. Here, too, production credit associations are coming in to finance some purchases.

Virginia credit associations have headquarters at Abingdon, Accomac, Appalachia, Chatham, Christiansburg, Farmville, Richmond, Roanoke, South Hill, Staunton, Strasburg, Warrenton, Waverly and Wytheville.

Game Birds are Doctor's Hobby

By CORNELIA S. BURT

BREEDING of game birds is the hobby and side-line of Dr. Fred E. Steere, physician and druggist of Claremont, Virginia.

His collection of pheasants includes Goldens, Silvers, Ringnecks, Lady Amhersts and Reeves.

Of these, the most striking is the cock of the Goldens. With brilliant plumage of yellow, orange, and bright red, with relief touches of blue black, he is, indeed a haughty autocrat, golden crowned.

The handsome Silver cock is nearly all white, with breast and throat of iridescent blue.

Pioneer Pheasant Breeder

Reeves and Ringnecks are of subdued colors, but, none-the-less aristocrats. Tail quills of some of these measure from 20 to over 30 inches. In the heavy sleet of last winter, some were fast bound to the ground by ice and were pulled out in the frantic effort of the birds to free themselves.

Dr. Steere was the first to introduce in Virginia, the breeding of fancy strains of pheasants. He bought a few pairs for pets. As his interest grew, he added to his collection. In addition to pheasants, he now raises hundreds of bob-white quail and has a few wood ducks.

Silkie hens and Golden Seabright bantams are used for hatching the frail eggs and as foster mothers. Modern and artificial methods of incubation and breeding are also used.

Sells Eggs and Birds

Dr. Steere is a native of Petersburg, Virginia. He was graduated from the Medical College of Virginia, at Richmond, and practiced his profession in that city several years. About 20 years ago, he located in Claremont.

Not-with-standing frequent calls as a physician, Dr. Steere spends much time working with his birds and in packing and shipping eggs and birds to distant, and nearby markets.

Subdued in color, the Reeves pheasants are never-the-less aristocrats of the game fowl world.



Difficulties In Brooding Chicks

By H. M. HYRE
(Extension Poultryman, College of Agriculture, West Virginia University)

OF MANY troubles affecting young chickens, coccidiosis is the most serious and causes more losses than any other disease after chicks are two weeks old. During the first week or ten days, pullorum disease, when the chicks are badly infected, is disastrous, but this loss can be avoided by obtaining chicks from sources free from pullorum infection including flocks from which the eggs are obtained and incubators in which they are hatched.



H. M. Hyre

Coccidiosis is caused by one-celled parasites that can be seen only with a microscope. These parasites may be spread in various ways, such as by wild birds or animals, as well as by domestic poultry. It is not possible to rid a farm of coccidiosis by starting with clean stock. The parasites live in the intestinal tract and multiply at a rapid rate.

Control of coccidiosis is not so difficult when the life history of the causative organism is understood. The coccidia pass from the infected birds with the droppings. Immediately after leaving the body the parasites are not infectious, but must remain on the outside of the body from 30 to 48 hours or more before they are again capable of causing the disease if picked up by other birds. The length of the period which the parasites must remain on the outside of the body before they are again infectious depends on moisture and temperature conditions in the brooder house.

These conditions are most favorable to the development of these parasites.

Strict sanitation is the only effective means of control known. The disease is most likely to affect chicks two to eight weeks old. During this period the brooder house should be thoroughly cleaned and the floor swept at least every five days. Absolute dryness is essential. Feeders and watering fountains should be of such type that the feed and water supply will not become contaminated with droppings. In case of an outbreak of coccidiosis, the brooder house floor should be swept daily from ten days to two weeks.

Mature birds are the most dangerous source of infection for this disease. For this reason the growing stock should never come in contact with the old birds.

Any treatment is beneficial only insofar as it helps the body to eliminate the parasites. A one or two-day feeding of a 20 to 30 per cent milk flush is quite effective in helping remove the parasites from the birds.

Sanitation is the only effective means of control known.



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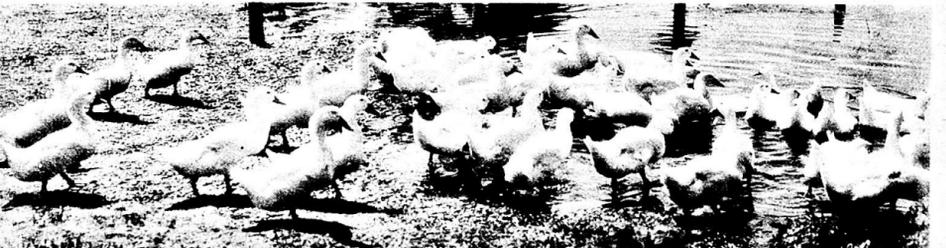
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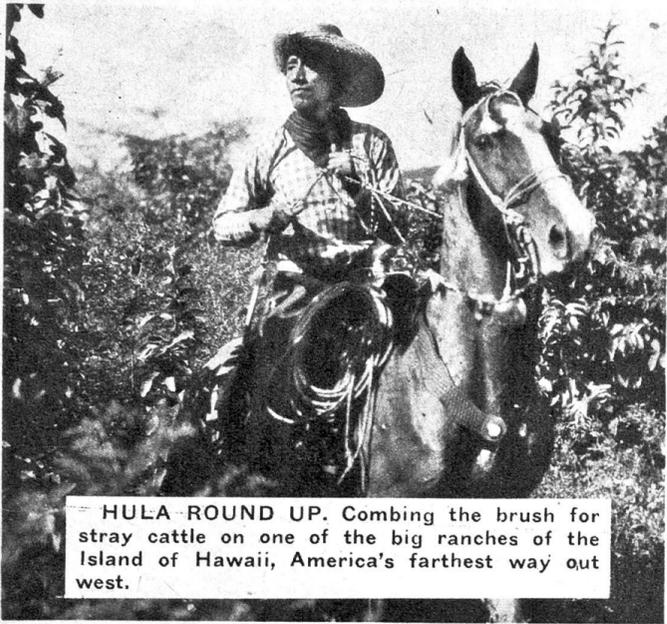
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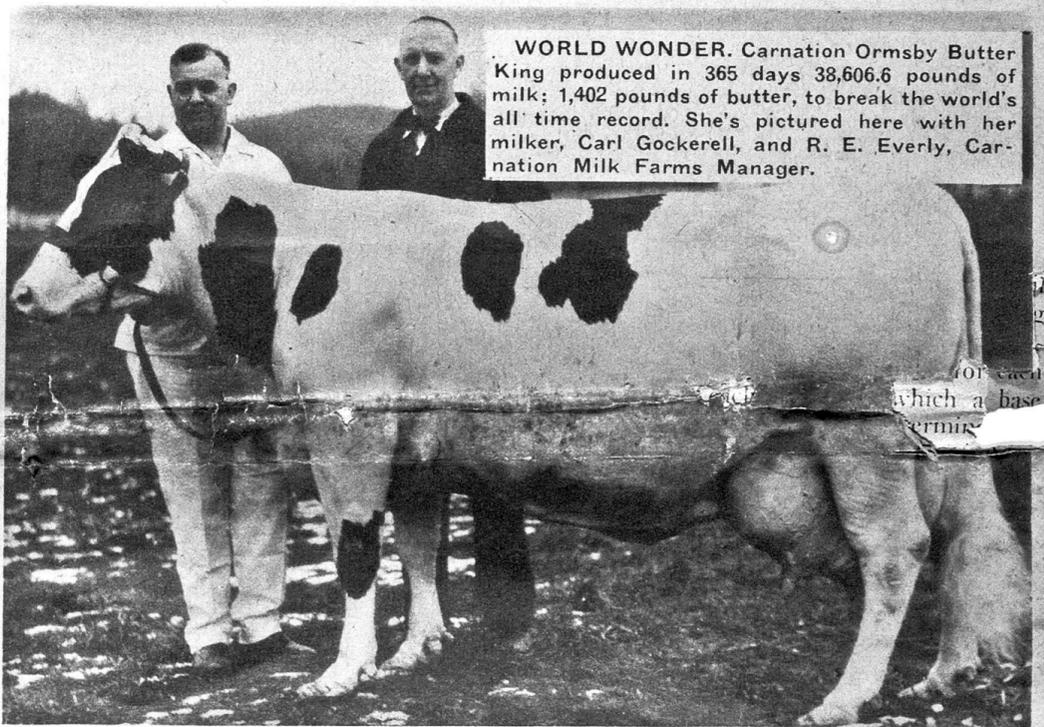
HULA ROUND UP. Combing the brush for stray cattle on one of the big ranches of the Island of Hawaii, America's farthest way out west.



CHARLESTON MAGNOLIAS. A glimpse of one of the garden's quiet pools, with vari-colored azaleas, camellia japonicas and ghost-like moss in the background.



Left: Sophisticated. Frances Langford, singing in Paramount's "Collegiate" wears this evening gown of black chiffon velvet with rhinestone embroidery accenting the neckline.



WORLD WONDER. Carnation Ormsby Butter King produced in 365 days 38,606.6 pounds of milk; 1,402 pounds of butter, to break the world's all time record. She's pictured here with her milker, Carl Gockerell, and R. E. Everly, Carnation Milk Farms Manager.

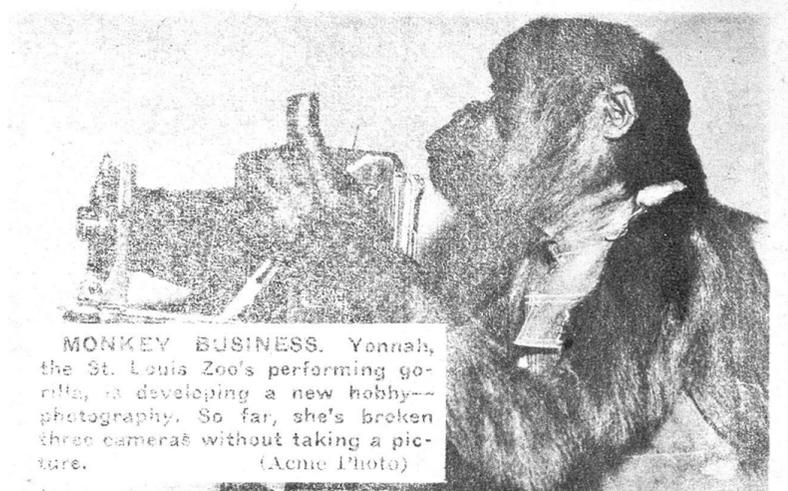


WHEN SPRING COMES 'Round and the smell of apple blossoms fills the air, as these in Virginia, Dixie's sure that Spring is really here.

Below: BROADWAY? No, just a class in tap dancing at the University of Kentucky. Rebecca Averill, physical education instructor, gives special pointers to Winnie Beverly Tate, Somerset, while the rest of the class looks on.



ON THE TRAIL of celebrities constantly, Helen Stevens Fisher interviews at least one each week on NBC's Farm and Home Hour.



MONKEY BUSINESS. Yonah, the St. Louis Zoo's performing gorilla, is developing a new hobby—photography. So far, she's broken three cameras without taking a picture. (Acme Photo)