

## Land Stewardship

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The United States Department of the Interior, soil erosion service, has a big job to perform. It is trying to check soil erosion. By establishing demonstration projects it is showing how this can be done.

To arouse and sustain interest in soil erosion and to secure owner-cooperation, and further to have a record of progress, individual soil erosion experiment stations publish monthly bulletins recording information of real value.

I am using a few items copied from October issue of the Bannister River Banner, Chatham, Virginia, where one of the soil erosion projects is under way.

Those who read this letter may find the information of interest, and it may cause some land-owners to have a better understanding of their responsibility as temporary stewards, for land remains for the use of future generations long after our stewardship is ended.

**America Is At The Crossroads**  
"America has not escaped periods of storm and stress, since white men first landed on the shores. Starvations, pestilence, and savage forays played havoc with the infant settlements. Wars and panics have visited the growing nations. Time and again no man could say that national integrity could be preserved, but none of these misfortunes have menaced the future of our people so much as the deterioration of the soils. Wars end, and nations heal their wounds, panics pass and prosperity returns but the erosion of the soil goes on with the grim persistence of death. Hillsides are denuded of trees and rains carry away the top soil, leaving behind raw wounds that grow worse with neglect. Rich bottom lands become practically covered with unproductive soil from the hills and their fertility lessened. In some cases, sands reduce such land to sterile waste. In the valley of the Staunton River there lies the site of an old Indian village, where at one time the red men, attracted by its fertility, established a permanent town. Where in those days were rich corn fields, now sand bars cover the area, brought in by the floods and freshets, and sand burs grow—nature's last effort to provide a protective cover."

**Protection Of Soil Vital**  
"That erosion takes place rapidly on unprotected soil is so well known that it scarcely seems worthy of mentioning. However, the following figures from the Statesville, North Carolina, soil erosion experiment station show a marked difference in the amounts of soil carried off of unprotected land, or land in cotton continuously and on land in grass.

On a sandy clay loam on a 10 per cent slope, the run-off of water on unprotected soil amounted to 32 per cent of the amount that fell and carried off 65 tons of soil per acre. On land continuously in cotton there was a 10 per cent run-off of water and loss of 14 tons per acre. On a grass sod the run-off amounted to only 5 per cent of water and .8 of a ton of soil per acre. Bearing in mind that there are approximately 1200 tons of earth per acre, varying with the soil type, in a 6 in. covering, and assuming a virgin soil of 6 in. in depth, the following interesting facts are apparent.

It would take 1500 years at this rate to remove the top 6 inches of soil from such an area of grass. In the meantime, it would be somewhat offset by the formation of the new soil. Assuming that an inch of new soil would be gained every 400 years, we would gain 3.7 inches new soil during the 1500 year period. Thus, actually losing 2.25 inches of soil during the 1500 year period.

Using the same basis of comparison, unprotected land would be stripped of the top 6 inches in 18.46 years. Theoretically, there might be a fractional gain but it would be safe to say that unprotected land of this soil type on such a slope would lose the equivalent of the top 6 inches in about 18 1/2 years. Of course, this would not be a uniform stripping under actual conditions, but the land loss in tons would be equivalent to it. This may seem hair splitting to a casual reader. We feel, however, that the effort is justified. We present it to you in an attempt to fix in your mind a definite picture of the actual loss that has been and is going on around us all the time."

It was Ruskin who wrote:  
"God has lent us the earth for our line. It is a great entail. It belongs as much to those who are to come after us as to us, and we have no right by anything we do or neglect to involve them in any unnecessary penalties, or to deprive them of the benefit which was in our power to bequeath."

### OVER 200,000 POUNDS COTTON CERTIFICATES SOLD IN GATES

In both Gates and Franklin counties, the farmers are buying surplus cotton certificates to gain their excess production. Over 200,000 pounds of certificates were sold in Gates County last week.

## Certificates Transferred Through County Agent

Legal transference of cotton tax-exemption certificates from one grower to another must be made through the county agent's office, warns Dean I. O. Schaub, of State College.

Illegally transferred certificates will be cancelled, he said, and the cotton they were intended to cover will be subject to the Bankhead tax of five and two-thirds cents a pound. To protect growers from fraud, speculators, or unfair practices in the trading of certificates, provision was made that all exchanges must be made through the county agent and at the rate of four cents a pound.

Schaub pointed out that it is also illegal to sell a certificate to a person who is not a cotton grower. However, it is permissible for ginners to go to the county agent and buy certificates for a grower when the grower gives him written authorization to do so.

When an illegal transfer is discovered, Schaub said, notice will be sent the collector of internal revenue and other persons involved in the transfer, including the county agent. Schaub also said that every dollar spent for extra tax exemption certificates goes to help growers who failed to produce the full amount of their allotments.

The sale of surplus gives the under-producer a form of crop insurance by enabling him to realize four cents a pound for that part of his allotment he failed to produce. It also gives the over-producer a chance to sell his excess cotton without paying the full amount of the Bankhead tax.

## Timely Questions On Farm Answered

Question: Should a laying mash be fed to molting hens?

Answer: Molting birds require just as much feed of all kinds as the laying birds and, in most cases, they need a little more of the protein elements. In addition to the laying mash the birds should have a plentiful supply of oyster shell or ground limestone and grit before them at all times. Animal proteins, greens and succulent feeds together with the laying mash will bring the birds into lay much sooner than if the mash is left out of the ration.

Question: What is the best ration for a dry cow during the winter?

Answer: No better practical winter ration for the dry cow can be had than legume hay and corn silage together with three to five pounds of a grain ration containing around 16 per cent protein. For the last two weeks, before freshening the grain ration should be restricted to laxative grains such as wheat bran and oats. Full directions for feeding all dairy animals are contained in Extension Circular No. 193, copies of which will be mailed free upon application to the Agricultural Editor, State College.

Question: Should lime be applied to sour land in the fall or spring?

Answer: As lime is a slow acting agent fall applications will usually give best results. Broadcast the lime on newly plowed land and then run a harrow once or twice over the field to bring the lime in contact with the soil. The winter rains will cause the lime to seep into the soil. The amount to apply will depend upon the acidity of the soil and the crop to be grown the following year. Farm agents will furnish a test and give directions as to the amount of lime needed.

## Trade Reflects Heavy Gains In Farm Income

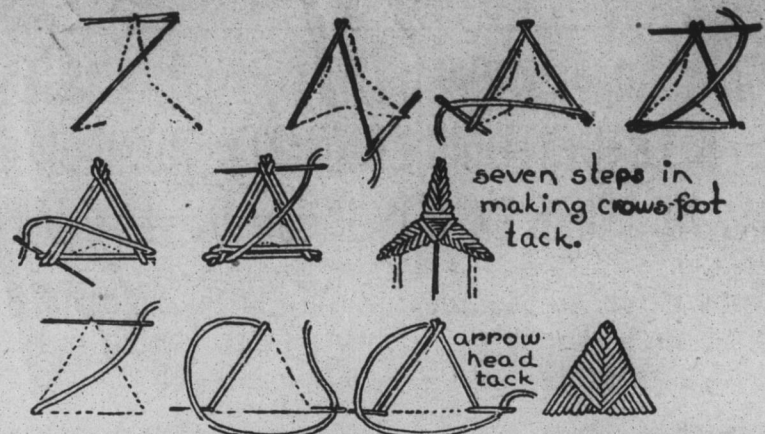
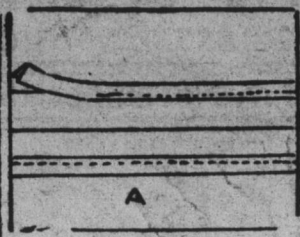
The Associated Press reports eastern business interests "considerably cheered because farmers will 'dig in' for the winter with a much fatter pocketbook than last year." Farm income was reported by the Bureau of Agricultural Economics to have totalled \$662,000,000 in September, an increase of \$81,000,000 over August and an increase of \$108,000,000 over September, 1933. Trade observers find this sharp improvement has been reflected in a substantial increase in retail and wholesale business, better collections than at any time since 1930 and stronger credit conditions in all major agricultural regions.

Farm income in the first nine months of 1934 were reported by the bureau as \$4,313,000,000, compared with \$3,479,000,000 in that period last year, an increase of \$750,000,000. The Associated Press financial editor in New York remarks that one of the best business indexes—bank clearings—have shown consistent increases in farm centers for several months, averaging as high as 44 per cent over a year ago.

Standard Statistics Co., Inc., estimates total farm income in 1934 will aggregate \$8,019,000,000, an increase of \$1,763,000,000, or 23.3 per cent, over the total of \$6,256,000,000 in the calendar year 1933.

## Our Own Weekly Sewing Club

Silk In Your Sewing



I hope you don't share a popular delusion that the Chinese are noted chiefly for chop suey and hand laundries. Several thousand years before they made those two important contributions to the great American scene they gave us silk.

Legend has it that about 1700 B.C. Hoang-ti, third Emperor of China, became interested in the lowly silkworm, or more particularly in the cocoon that served as domicile during the period of its transformation into a moth. At his behest his 14 year old empress, Sing Li Chi, overcoming her feminine aversion to crawling creatures, proceeded to cultivate the worms and soon discovered that the tiny thread out of which they created their "retiring rooms" could be unwound and woven into garments.

It is gratifying to add that contrary to common custom, little Sing Li Chi received credit for her "laboratory research" and has come down through the centuries as "The Goddess of the Silkworms."

The most valuable and closely guarded secrets have a way of traveling, in spite of government decrees and dire penalties. The lowly silkworm, which was once an individualist with a "factory output" limited to its own needs, has become, willy nilly, a cog in many great collectivist machines. No longer may it dissolve the valuable fibres of its cocoon and emerge to attain its natural destiny as a moth and a mother, unless it happens to be one of the few chosen by its human rulers to carry on its race.

But its rulers have increased its productive capacity to the point where a single cocoon yields a quarter of a mile of fibre. They have learned to wind the slender fibres, five or six together, letting their natural gum cement them into a stronger fibre, to wind the fibres into threads and to weave the threads into beautiful and luxurious fabrics. Silk thread plays a part in every woman's sewing. It is available in every shade you're likely to wish.

When sewing silk fabrics on the machine use silk thread in both needle and bobbin so there'll be no puckering. Wool and silk fabrics that fray easily should have their seam edges bound with silk seam binding, sewed on by hand as in Sketch A.

Silk threads come in twist size for buttonholes and in a still heavier size for tacks as in Sketch B. When you're handling very fine silk material a silk thread can be split and a single strand used with a very fine needle.

## TEETOLERS

Much has been said and written about the proper environment in the home being the reason for children using or refraining from the use of strong drink. An interesting fact coming from Creswell may or may not be the attitude taken by other parents.

William Barnes, living near Creswell, is the father of seven sons, and he has kept wine in the home during the rearing of his children. They could have tasted wine if they so desired, but strangely enough all seven of the boys have never tasted wine or any other intoxicating liquor. The brothers are William Mitchell Barnes, Harry Barnes, Charlie Barnes, Earl Barnes, Lloyd Barnes, Odell Barnes and Otis Barnes.

## Dates Set For Civil Service Examinations

The United States Civil Service Commission has announced open competitive examinations as follows:

Automatic 3-A addressograph operator, \$1,440; F-1 and F-2 addressograph operator, \$1,260; graphotype operator, \$1,260 a year, departmental service. Closing date, November 23, 1934.

Junior financial statistician, \$2,000 a year, Securities and Exchange Commission. Closing date, November 26, 1934.

Steel plate engraver (picture and vignette), \$19.20 a day and \$3.60 an hour for overtime, Bureau of Engraving and Printing. Closing date, November 29, 1934.

Assistant fireman, steam-electric, \$1,680 a year, departmental service. Some vacancies to be filled at \$1,860 a year. Closing date, November 26, 1934.

Junior parasitologist, \$2,000 a year, Bureau of Animal Industry, Department of Agriculture. Closing date, November 26, 1934.

Assistant foreman, brush factory (solid-back, staple-set brushes), \$1,860 a year, Leavenworth penitentiary. Closing date, November 30, 1934.

The salaries named are subject to a deduction of not to exceed 5 per cent during the fiscal year ending June 30, 1935, as a measure of economy, and also to a deduction of 3 1/2 per cent toward a retirement annuity.

All states except Iowa, Vermont, Virginia, Maryland, Rhode Island and the District of Columbia have received less than their quota of appointments in the apportioned departmental service in Washington, D. C.

Full information may be obtained from the secretary of the United States Civil Service Board of Examiners at the post office or custom house in any city which has a post office of the first or second class, or from the United States Civil Service Commission, Washington, D. C.

## GOOD MILK COWS DESERVE A REST

The fact that dairy cows apparently live an easy life doesn't mean their bodies are not taxed heavily by the work of producing milk, says John Arey, dairy extension specialist at State College.

Milchers need at least six weeks of rest between lactation periods, he said, to give them opportunity to rebuild their body tissues and bony structures.

During the first few weeks after calving, the cows usually give off in milk more food nutrients than is contained in the feed she eats. Consequently, cows should have a reserve stored up in their bodies during the rest period. A lack of it will restrict milk production and impair their physical condition.

Heavy producing cows, when on official test, often draw on the mineral matter of their skeletons to such an extent that the bones break easily.

Such cows need a two-month rest so they can rebuild their bony structure.

During the rest period the grain ration should contain a liberal supply of minerals. The following is suggested by Arey: two parts of corn meal, two of wheat bran, one of cotton seed meal, two per cent of steam bone meal, and one per cent of common salt. These parts should be determined by weight and not by dry measure.

A sufficient quantity of grain should be fed during the rest period, together with good pasturage in the summer and legume hay in the winter, so the cow will be in good flesh at freshening time. Heavy milkers need more grain than average good milkers, which can get along with a moderate amount of grain if plenty of pasturage and legume hay is available.

## FURNITURE INDUSTRY MOST NORMAL BASIS SINCE 1929

According to a survey just completed by Dun and Bradstreet, the furniture industry has gained enough ground in the past year to establish the most normal trading basis that has been achieved since 1929. Sales totals in August exceeded the 1933 figures, with small retailers making a better showing than the department stores and large establishments. In some sections of the Middle West, South, Southwest and Pacific coast, many retailers with an annual volume under \$500,000 doubled their figures of August, 1933, while increases of 25 per cent to 50 per cent were general. The widening of the demand

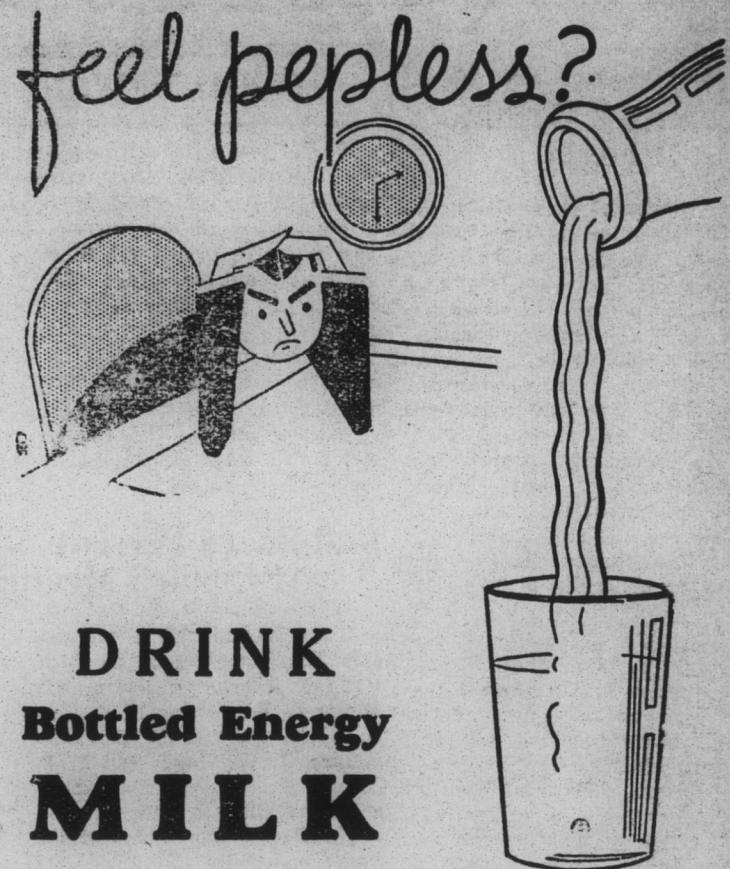
since mid-September, according to the report, gives evidence of making the last quarter of 1934 the best experienced in several years.

## PLEASED AND DISPLEASED

Cotton growers in Wayne County who have surplus production this year are dissatisfied with the operations of the Bankhead Act while those who have more certificates than cotton are highly pleased with the Act.

## START TERRACING CAMPAIGN

A terracing campaign to save their good soil from washing away has been started in Granville County by a group of progressive farmers.



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