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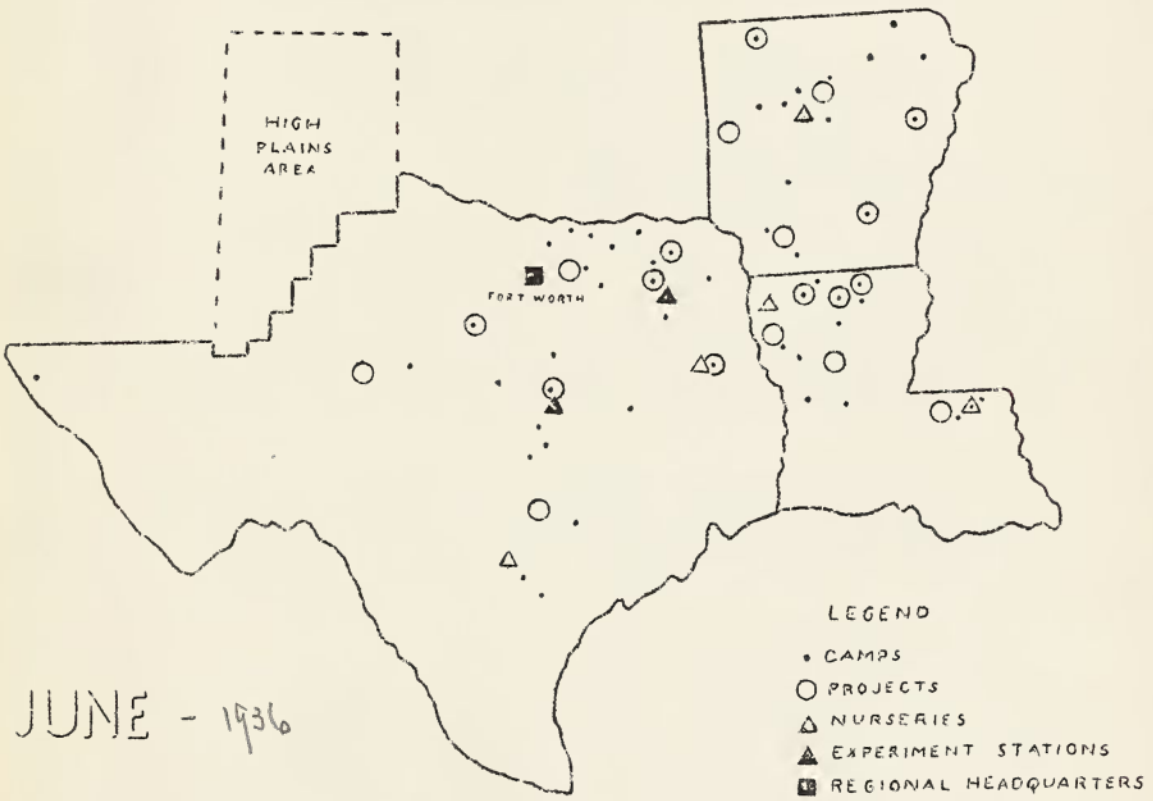
SOIL CONSERVATION SERVICE

NEWS



JUNE - 1936

REGION 4

COMPRISING STATES OF LOUISIANA, ARKANSAS, AND TEXAS, EXCEPT HIGH PLAINS AREA

Volume 1. Number 2.

SOIL CONSERVATION SERVICE NEWS

Region 4: Louisiana, Arkansas and
Texas, except high plains region

LOUIS P. MERRILL, REGIONAL CONSERVATOR
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HUGH H. BENNETT MAKES BRIEF VISIT

Hugh H. Bennett, Chief of the Soil Conservation Service, made a brief visit to Texas during the latter part of May to speak at the annual meeting of the Texas Geographic Society at Dallas. Mr. Bennett stated that he hoped to return to Region 4 at an early date and make a tour over some of the project areas in Louisiana, Arkansas and Texas. Below are excerpts from the talk made by Mr. Bennett at Dallas.

AMERICA'S SOIL LOSSES A NATIONAL CALAMITY

The conservation of productive soil and the protection of our farm lands from impoverishment and ruin by wind and water has become one of the most important national problems of the day. Upon its solution depends the ability of the soil to support that great segment of our population which takes its living directly from the land, as well as the ability of the nation to continue to produce from its own soil the necessities of national existence. That ability to support and produce, plentifully and in variety, made America great; it must be sustained if America is to stay great. And it can be sustained only if the fountain of production-- the soil-- is guarded and preserved.

The problem is by no means solely agricultural. It affects those who live in cities as surely as it affects the farmer. Its solution is of as much importance to the industrialist as to the agriculturist. It is of vital concern to all America, because all America must have food and fiber from the soil.

Conservation of the soil is largely a matter of using the land in accordance with the dictates of nature. Hitherto, in this country, we have sought unsuccessfully to repeal natural laws that interferred with our use of the land. As already noted, we have stripped away the vegetative cover that protected the soil from wind and rain for countless centuries before white man came. We have farmed steeply sloping fields without thought of the law of gravity or the erosive powers of water. We have bared our plains and prairies with seldom a thought for the power of wind.

Now we see the consequences in ruined and depleted land. Our farmers have watched the odd-colored patches of soil appear one by one in their fields as rich topsoil washed away to bare the subsoil strata, which consist of material very different from the loamlike, humus-charged surface layer. They have seen clear and sparkling streams grow muddy and sluggish with burdens of rain-washed soil.

Erosion is no respecter of humanity. It is a vicious and accelerating process-- Nature's protest against land abuse. Some 300 thousand acres of farm land are essentially ruined every year by American farmers who have tried and failed, as they must always fail, to repeal the laws of nature.

The costly effects of erosion do not end with damage to the land. Soil washed from hillside fields and pastures-- billions of tons of it a year-- goes into the creeks, from the creeks to the rivers, from the rivers to reservoirs and harbors; only a part of it goes on to the oceans. Probably two thirds of the vast load comes to rest in river channels, power and water supply developments, or is deposited along lower slopes and over the flood plains of streams. Scant attention has been given the matter of sedimentation. But recent studies indicate quite clearly that we can have no permanent water storage systems until we have curbed erosion in the headwaters of contributing streams.

In this country, there are more than 1,200 storage reservoirs and more than 10,000 dams, involving an invested capital of several billion dollars. Little effort has been made to protect and preserve these resources from filling with silt.

We have come also to realize that the problem of flood control can not be met adequately until we curb the flush runoff of rushing waters on denuded watersheds and the deposition of sediment in stream and river channels.

Floods must be controlled at their source-- where the rain falls on the land. There can be no permanent control of floods until we have control of erosion over entire watersheds, from the crest of ridges down across the slopes where floods really originate and where soil is picked up to choke streamways which have only a limited capacity for carrying water to the sea. Erosion by water is the product of accelerated runoff of rain and melting snow, induced by man's activities on the land.

Rearrangements of the face of a land, such as are required for civilized occupation and the pursuits of modern agriculture and industry, make inevitable an increased runoff of water and transportation of sediment. Where man clears ground and erects buildings, the fire hazard increases, and civilized measures of defense and protection must be devised. So with other hazards imposed by civilization. Where man advances, changing a wilderness into a region of farms and towns, the runoff of rain in that region changes, and must be watched and handled with a care which under natural conditions need not be used. It is a matter of record that flood stages have been mounting in this country, and that sedimentation has been increasing throughout our history. For all of our advancing devices and increasing expenditures to control running water, we are a long way from achieving complete control.

One reason for this is that we have never really tackled the problem as a whole. What we need is a coordinated and inter-dependent approach which will treat the whole water system, from the crest of the hills right down to the mouth of the rivers. The runoff from our land need not be as savagely excessive as it is now. We know how to stop it or to slow it down. If we apply this knowledge over wide areas, the means of defense against raging water need not be so exclusively as now, a matter of building masonry and earth defenses, downstream, higher and higher. In the uplands, where the floods form, Nature teaches a lesson by throwing across practically every foot of land under forest or natural grass cover an interlacing system of tiny dams. A dead leaf, a blade of grass, or a root tangle can stop a raindrop from running, hold it back; and floods are made up of raindrops, infinitely multiplied.

(More excerpts from Mr. Bennett's talk will be printed in the next issue of the News Letter)

WILDLIFE PRESERVATION A NATIONAL PROBLEM

By
Homer G. Towns,
Junior Biologist.

Wildlife preservation, like soil conservation, is a national problem. For example in 1929 more than 13,000,000 paid for hunting and/or fishing licenses or were known to hunt or fish, but were exempt from paying licenses. This group, growing larger each year, spends millions of dollars annually for hunting privileges, equipment of various kinds, transportation, clothes and lodgings. In addition to the more than 13,000,000 huntsmen and fishermen there are probably three or four times that number, known as the naturalists, nature lovers and others who seek the "out of doors" for recreational and aesthetic opportunities, who appreciate wildlife just as much or perhaps even more than the man who hunts or fishes.

Perhaps the greatest importance of wildlife is the value of birds in the control of insects. "The great majority of land birds subsist upon insects during the period of nesting and molting, and also feed their young upon them during the first few weeks. Many species live almost entirely upon insects, taking vegetable food only when other subsistence fails. It is thus evident that in the course of a year birds destroy an incalculable number of insects, and it is difficult to over-estimate the value of their services in restraining the great tide of insect life." (Farmer's Bulletin 630).

STRIP CROPS REDUCE SOIL LOSSES

Experimental data developed by Soil Conservation Experiment Stations are conclusively proving the value of strip crops as an erosion control agency. Latest data received from E. B. Deeter, in charge of Soil Conservation Service research work at Temple, Texas, not only backs up previous findings, but offers substantial additional proof as to the value of strip crops in reducing soils losses.

Mr. Deeter commenting on the recent report made from the Temple station says, "We have secured detailed information with reference to the three large (strip crop) plots which have been giving such valuable information at the Temple station."

The report shows that only .63 of a ton of soil per acre was lost from a large strip cropping experimental plot as a result of the 3.08 inches of rain that fell on April 28. This plot, as well as two other plots that were not strip-cropped, is located on Houston clay having a slope of 4 to 6 per cent. One of the check plots planted to cotton with the rows up and down the slope lost 17.11 tons of soil per acre as a result of the same rain, while the third plot planted to cotton with rows on the contour lost 14.99 tons per acre.

The strip crop plot planted to cotton with control strips of oats on the contour lost only 4.91 per cent of the rainfall by run off, while each of the other plots lost more than 50 per cent of the run off.

Mr. Deeter calls attention to the fact that during the present year the lower strip on Plot 23 is planted to cotton so there is no protection immediately above the silt box. Under such circumstances the ratio of 27 to 1 (for eroded soil) where strip cropping is compared to cotton rows up and down slope is remarkable, he states.

STRIP CROPS FURNISH FEED

According to Mr. Herman Ohlendorf, the hay obtained from peas and sorghum planted on strips saves him money ordinarily spent in buying feed to finish out 15 or 20 head of beef calves each year. "By planting roughage on strips I save my soil from washing and, at the same time, the extra feed from the strip crops helps me balance my farm program by giving me needed feed for my livestock", said Mr. Ohlendorf.

Harts Creek Project,
Lockhart, Texas.

SURVEYS IMPORTANT TO EROSION CONTROL PROGRAM PLANNING

By

C. L. Orrben, Chief,
Conservation Surveys.

Any good physician carefully diagnoses the condition of his patient before prescribing treatment. In like manner the entire erosion control program recommended for each farm placed under Cooperative Agreement is based upon surveys which include a thorough inspection of every acre of the farm. These surveys or inventories serve as a basis for determining the proper land use for the different parts of the farm.

Numerous factors must be taken into consideration if a practical, sound erosion control program is to be put into effect. The nature of the soil is one of these factors: Very few farms consist entirely of the same kind of soil. More often at least three and sometimes as many as fifteen soil types are found on a single farm.

Soil separations are based on definite characteristics of the different soil layers from the surface downward. Those soils having the same color, structure, texture, parent material and position are included in a series. Each series is further divided into soil types, the separations based on the texture or the fineness of the particles of the surface layer.

Some soils may have porous surface layers underlain by dense impervious sub-soils; some may have dense surface soils and be underlain by friable sub-soils through which moisture may readily percolate, while others may be permeable throughout their entire depth. It is not unnatural, then, that there is a difference in the way each soil type responds to treatment, in its value as crop land or in the manner in which it erodes.

In conjunction with soils the degree of erosion or the amount of surface soil that has been lost through sheet erosion is determined on each acre. The depth of the surface soil remaining will in a large sense determine its value as crop land. Soils that have lost 50 to 75 per cent of their surface layer are much less productive than they were when first cropped. In most cases where practically all of the surface soil has been lost it is not economical to utilize this land for cultivated crops. Sheet erosion is expressed by numerals, the class depending upon the severity to which it has progressed. The survey also shows the number and depth of gullies in each field.

The slope of the land must also be considered in determining proper land use. Regardless of erosion prevention practices adopted soil movement in cultivated fields cannot be effectively controlled on steep land, therefore, slope limits are set up within each project and

camp area limiting the cultivated land to those areas where soil movement can be reduced to a minimum. This slope limit will vary with each project depending upon soil, extent to which erosion has progressed, rainfall (amount and intensity), and type of farming practiced. Present land use is recorded on the map. Any change in the soil, erosion (sheet or gully), per cent of slope or land use requires a delineation of that area affected by the change.

The map of the farm also shows all physical features such as roads, streams, houses, fences, cemeteries, etc.

With the map showing actual conditions as they exist on every acre of land, the farm can be planned systematically, using every acre according to its best adaptations, and placing on each acre those phases of the complete and coordinated erosion control program which will best do the job of controlling erosion.

Following issues of the News Letter will contain more detailed information concerning each of the factors briefly described above.

MILLION DOLLAR RAINS

"Worth a million dollars" is a phrase we have come generally to use when speaking of any appreciable precipitation coming on the heels of a dry period. No doubt we have been, broadly speaking, correct.

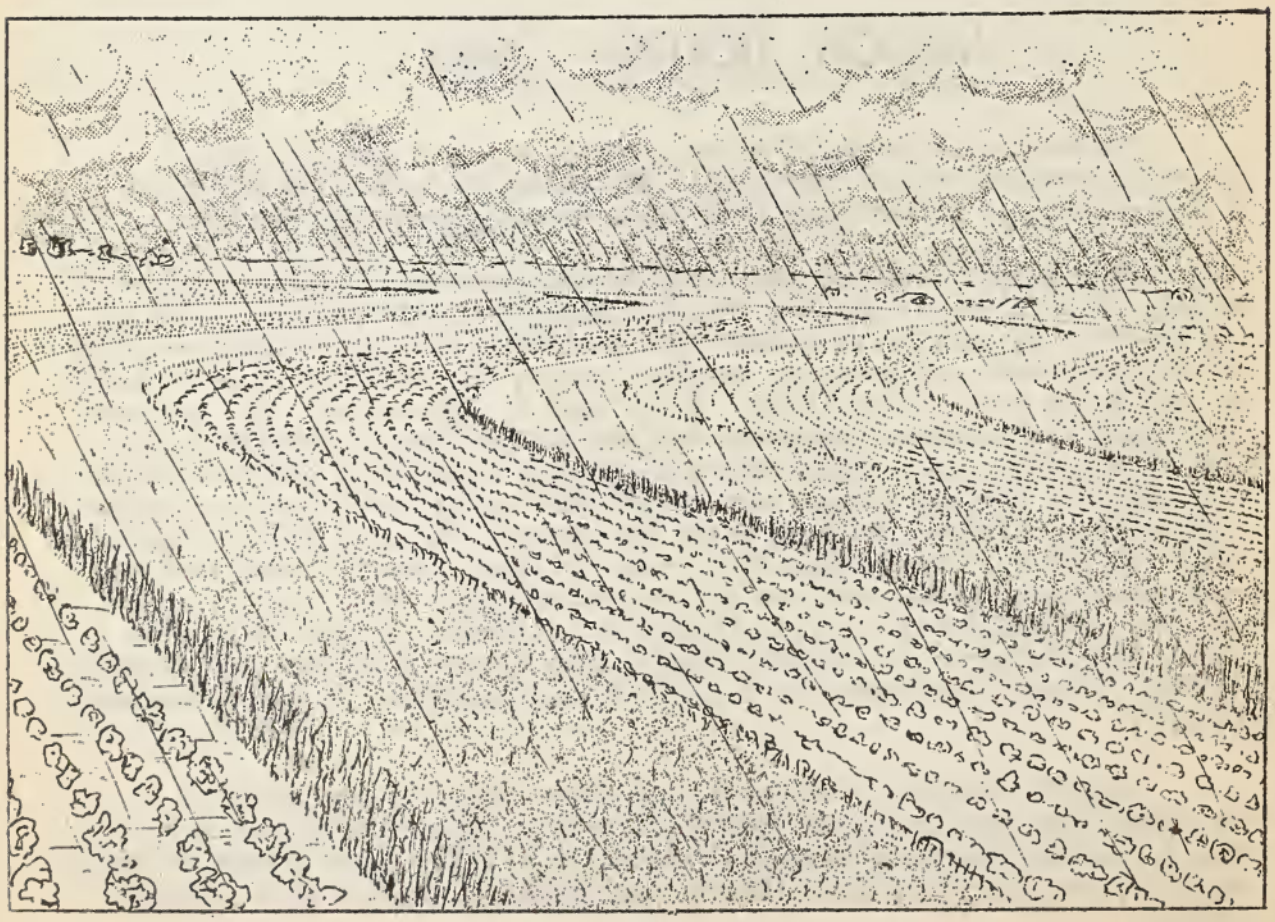
How many of us, however, stop to consider that "million dollar rains", of which we speak so enthusiastically from time to time, are not all profit? Do many of us deduct from that more or less fictitious million dollar profit the enormous erosion damage, the ultimate erosion cost of such rains to our farm lands? Do we stop to figure that the very rains that bring the moisture necessary for profitable farming operations are also responsible for washing away thousands of dollars of potential profits from our capital stock-- our soil? More of us must come to a realization that moisture bringing rains proceed relentlessly in the form of rapid run off to sweep thousands of tons of productive top soil from the land, start new gullies and cut old gullies deeper. When we have what is termed a "million dollar rain" then we must enter on the debit side of the farm ledger that terrific damage done by the rapid run off of rain water to fields unprotected by a complete and coordinated erosion control program.

Reports coming to the regional office from Project Managers throughout the sections where heavy rains have fallen brought many interesting stories regarding the manner in which the different phases of the erosion control program most effectively protected fields from erosion damage.

One of the most interesting reports came from W. H. DuPuy of the Lockhart Project. Mr. DuPuy stated that strip cropping did a perfect job of soil conservation on the 84-acre field owned by Ed Loepp, a Co-operator with the Soil Conservation Service. During a period of four days there was a rainfall of more than seven inches. Strips on the Loepp field so effectively reduced the velocity of the run off, thus causing deposition of the soil carried by the water, that the water flowing out of the lower side of the strips was clear. Mr. DuPuy stated that the water "really looked clean enough to drink."

Contrasted with this field were nearby fields, unprotected by erosion control measures, that were badly damaged by the rushing rain water, thus furnishing definite additional evidence, visible to the eye, that strip crops will do an effective job of erosion protection.

Paraphrasing an old adage, farmers who would protect their fields from erosion should take steps to institute coordinated erosion control measures on their land while the sun shines. Those who do will be in a better position to receive the full benefits to be derived from "million dollar rains" and will not have to charge serious erosion damage against the value of needed rainfall when it comes.



ARKANSAS NEWS

ARKANSAS FARMERS CAN PROFITABLY UTILIZE STEEP LAND TO GROW TREES

Farmers of Arkansas must reforest if they would make the best utilization of their land, since there is a tremendous acreage of steep and eroded hillsides in the State that cannot be safely or profitably cultivated. Continued clean cultivation of hillsides that should be in trees means that many farmers are simply fighting a losing battle and are laying their good meadow and bottom lands open to silting and overwash as water rushes down from unprotected hillsides.

The total land area of Arkansas is 33,616,000 acres. A hundred years ago 32 million acres were covered by trees with an enormous and diversified woodland wealth. Early settlers in Arkansas found their woodlands to be of great value to their farming operations. From the woodlands they secured fuel, timber, posts for their fences, and game of all kinds for food. Farmers depended to a great extent upon their woodlands for a livelihood.

Today we find many of the formerly wooded areas cleared of timber and other vegetation, the land laid bare to the ravages of erosion. Improper utilization of this land has not only done away with profitable woodland crops on the hillsides, and cultivation of such areas found to be unprofitable, but lower lying lands have been damaged by the run off of rain water sweeping down from the hills.

According to detailed information compiled by Dr. J. A. Dickey, Department of Rural Economics and Sociology, University of Arkansas, in his study of farm management made a few years ago, satisfactory financial returns may be obtained from woodlands. Dr. Dickey's analysis indicates an actual average return from woods products, including value of fuel and other wood material used on the farm as well as products sold, of $2.13 per acre, per year.

Thus, not only do woodlands, properly protected, offer a source of revenue for the farm from acres which cannot otherwise be profitably utilized, but the trees on such areas hold the soil and water on the hillsides and help protect lower and more level land from erosion damage.

Woodland improvement and woodland management are very important phases of the land utilization and erosion control program in Arkansas.

EROSION CONTROL MEASURES WILL REDUCE FLOOD AND DROUTH HAZARDS IN ARKANSAS

Uncontrolled run off of rain water is a serious menace to all Arkansas citizens, particularly to those who own farm lands in the hilly or rolling sections of the state. Floods, drouth, and the state's social and economic welfare are related to a considerable extent to the type and amount of erosion control work instituted in areas where much of the land is subject to soil and water losses. Proper land use and erosion control must of necessity be given serious consideration if overflows are to be stopped on lowlands where floods are periodical or occasional.

The land must be protected by effective water and soil conservation measures. Facts relating to the effectiveness of erosion control measures in reducing flood hazards along streams where overflows occur are gradually beginning to impress land owners that the starting point in the fight against floods is in holding as much of the water as possibe on the very land where it falls.

It is not inconceivable, for instance, that the flood menace of the Arkansas River could be done away with, or certainly minimized, by the institution of soil and moisture conservation measures on some 14,000,000 acres of land in the river basin. Until such a happy situation can be reached, each farmer in the area can start doing his part by using a coordinated soil and water conservation- program -on his own farm, thereby, not only insuring his land against the ravages of erosion and increasing its drouth resistance, but he would also be doing his individual part of the larger problem of holding back ultimate flood waters from the river.

Every gallon of water held on the hillsides and kept from rushing into and choking the tributaries of the Arkansas River has a direct bearing on the reduction of flood dangers. Another most important angle in the holding of water on the land and slowing down the rapid run off with erosion control measures is that by so doing, erosion would become a minor instead of a major problem on the farm where such practices are used.

The conservation of moisture by the use of proper erosion control measures is also of great importance, especially when a drouth follows rainfalls of flood proportions as is often the case. Experience of farmers bears out the fact that if rainfall is held on the land even for a short time such areas are more drouth resisting and may produce a good crop even in dry periods.

By the use of proper measures for the control of erosion, which is an ally of both flood and drouth, farm lands are not only protected from washing, but flood and drouth dangers are greatly decreased.

VEGETATIVE EROSION CONTROL PRACTICES GIVE GOOD RESULTS

By

Rufus J. Nelson
East Cadron Creek Project, Conway

Meadow strips are serving a dual purpose in the erosion control program of the East Cadron Creek project at Conway. Wherever possible meadow strips are being used to care for excess water coming from terraces. It has been found that properly located meadow strips will handle a heavy flow of water. Vegetation, once established on such strips, serves to slow down the rapid flow of water and carry it safely to stream level without danger of washing or cutting.

A second, and very important factor in the use of meadow strips, is that natural drainage ways, developed into meadow strips offer an opportunity to utilize acreage for a feed crop that might not otherwise have productive value in the farming operations. Meadow strips, where possible, also do away with the necessity of constructing outlet channels.

An interesting example of the value of meadow strips is found on the T. A. Watkins farm in White County. "Meadow strips not only take care of surplus water from terraced fields, but also produce profitably heavy yields of hay," says D. D. Thornton, manager of the farm. "In 1935 approximately 33 acres in meadow on the farm produced 50 tons of good hay."

Mr. Thornton is especially interested in all vegetative measures of erosion control. Carrying this interest into action the Cooperative Agreement which he has made with the Soil Conservation Service places 112 acres of land into pasture, keeps 33 acres in meadow and puts 27 acres in black locust trees, bringing the total of woodland acreage on the farm to 81. Mr. Thornton says he is confident that the acreage devoted to woodland, pasture and meadow is more profitable than if put in row crops, especially since this land needs protection from progressive erosion. Mr. Thornton is enthusiastic over the plan of proper utilization of his land and of vegetative measures for erosion control. He confidently anticipates that the land use plan will mean a substantial increase in the value of the farm during the five year period covered by the Cooperative Agreement.

Dewey Plant of Faulkner County is another farmer who states he is finding that the retirement of steep lands from row crops, the development of meadow strips, strip crops and other protective measures are bringing about a visible decrease in erosion on his farm.

BERMUDA GRASS INTRODUCED IN FAULKNER COUNTY 44 YEARS AGO

By

Rufus J. Nelson

Bermuda grass, which is being used so widely in the East Cadron Creek project area to anchor soil and control rapid run off of rain water, was introduced into Faulkner County 44 years ago, according to an interesting story told by Jackson R. Beckett, pioneer citizen of this section.

Mr. Beckett says that his father bought a farm from a Mr. Cockeral more than half a century ago. Mr. Cockeral, after completing the sale of his Arkansas property moved to Red River County, Texas. He wrote letters back to the elder Beckett telling him of an interesting grass that grew so luxuriously in Texas. In one of the letters Cockeral enclosed a sprig of the grass.

This sprig of grass was set out. It lived, thrived and spread. Today this grass, developed from a single Bermuda sprig sent through the mail, is being used by Cooperators with the Soil Conservation Service to sod pastures, outlet and channels, start meadow strips and in fact to control erosion in many ways in the East Cadron Creek project area.

While Bermuda has long been recognized as an important grass in this section, it is through the erosion control program of the Soil Conservation Service that its true worth has come to be widely appreciated. As a means of controlling erosion Bermuda grass is perhaps second only to unburned, protected forest. Realizing this fact Soil Conservation Service Cooperators are using the grass to excellent advantage in terrace outlets, outlet channels, establishing meadow strips, gullies and pastures.

NO LOST TIME ACCIDENTS IN ELEVEN MONTHS

By

G. F. Castleberry, Camp Supt.

On June 26 Co. 3783, CCC, SCS-Ark-7, at Jonesboro will have been in camp one year. At this writing the using Service has not had a lost-time accident, either to an enrollee or to any of the personnel. This record is attributed to three things: first, a Safety Committee that really functions; second, a group of foremen and field leaders who obey safety regulations to the letter; third, a safety consciousness that has been built up among the enrollees.

TEXAS NEWS

AFTER THE RAINS

Schulenburg, SCS-10-T.-- The last ten days of May brought to this area the heaviest rainfall within the memory of the oldest citizen. In one 24-hour period 11 inches of rainfall were recorded. During the 10-day period 17.5 inches of rain fell.

Damage to fields unprotected by proper erosion control measures was enormous. Overflows in creek and river bottoms attained the highest stages ever known, and crops were ruined when bottom lands were covered with one to four feet of sand and clay.

Erosion control work done on the farms of Cooperators in the camp area came through the severe test almost 100 per cent; the only real damage done was to incompleted work. Cooperators were especially impressed with the manner in which strip crops slowed down the rapid run off of water and protected the fields from sheet erosion.

As an indication of the manner in which all of the coordinated erosion control measures withstood the heavy rains, it is interesting to note that applications for inspections looking forward to Cooperative Agreements increased 200 per cent during the two weeks following the rains.

* * * * * *

Gatesville, SCS-T-26.-- Approximately 7 inches of rain fell in the camp area from May 22 to 28. On May 28 approximately 2 inches of rain fell in 30 minutes.

On lands protected by coordinated erosion control measures such as strip crops, contour cultivation, contour ridges, terraces and other phases of the program, excess water from the heavy rains ran off slowly with the result that very little soil was lost.

Unprotected fields showed much sheet erosion and gullying.

The effect of strip crops in controlling erosion was very noticeable. This economical phase of the erosion control program functioned efficiently in slowing down the run off of water and holding soil on the fields.

The value of terrace outlet protection was clearly demonstrated. Run off water from terraced fields was safely handled by sodded outlet channels or dumped through individually sodded outlets on unburned pastures.

SEES STRIP CROPS "IN ACTION."

Mr. Sam J. Powell's clothes were soaking wet. He had been on an inspection tour of his farm during one of the recent heavy rains to see how erosion control measures were operating.

"I intend to live on this farm the rest of my life and to save it for 'Buddy' and 'Sister'. I don't regret one hour's work that's been done. That's why I recently bought another span of mules in order to carry on with the erosion control program during the busy cropping season.

"At first I accepted strip crops to get the rest of the program. After watching this big rain I'm mighty glad I had millet and sudan strips to help protect my fields. Just as soon as it's dry enough I intend to plant more strips."

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PROPER LAND UTILIZATION IS JUST GOOD BUSINESS

"Why worry about that?" said Mr. C. D. Davis of Neches, Texas, when he was told some of his land would have to be retired from cultivation if he would have a complete coordinated erosion control program on his farm. "I'll just retire the entire farm if it is necessary to do so in order to put it to the use for which it is best adapted and to keep it from going to ruin. This is a business proposition with me. Certainly it is to my advantage to make these adjustments in order to protect my capital investment as well as to save the land for the use of future generations."

The land owner who accepts the attitude so aptly expressed by Mr. Davis is not only using foresight in planning his own business but accepts his responsibility to future generations.

The productive capacity of some of the cultivated land on Mr. Davis' 144-acre farm was low. The cost of necessary erosion control measures on these acres would be high. The impracticability of retaining all of the land in cultivation was evident to the owner. He knew that the problem of erosion was yearly becoming more serious and that he would have to make rearrangements in his cropping system if he expected to preserve the investment that he had in the land.

No great lasting good can be accomplished until the individual land owner or operator, who has seen his fields dwindle from a profitable to an unprofitable investment, courageously faces the facts and undertakes to put an end to the constant depreciation of his land by institution of approved erosion control measures.

Proper utilization of each acre of the farm is a problem that should be carefully considered by every land owner or operator. Certainly it is the basis of planning for effective erosion control. Land not suitable for cultivated crops because of degree of slope or extent of erosion should be returned to pasture or woodland. Approved tillage methods, rearranged crop systems, and institution of necessary control measures as needed on cultivated land are all factors that must be given consideration if productive soil is to be held on the land where it belongs.

No man lives to himself. Neither does one generation exist without influencing the welfare of the next. The standard of living of the next generation will be very definitely affected by the treatment which the soil receives at the hands of the present day farmer. Thus the adoption of coordinated erosion control measures for the protection of cultivated land, pasture and woodlands involves more than the well being of the people of today.

Hundreds of farms in our own state are rapidly approaching the point of abandonment because of uncontrolled erosion. Is it not time to cooperate with nature and conserve our acres by putting them to the use for which they are adapted?

Read again the words of Mr. Davis in the first paragraph of this article.

SCS-19-T
Jacksonville, Texas.

* * * * * *

COOPERATOR INVITES OTHER FARMERS

TO VISIT HIS PLACE

Owens, Texas,
June 11, 1936.

Soil Conservation Service,
Neil P. Anderson Bldg.,
Ft. Worth, Texas.

Gentlemen:

Since reading the first issue of the "Soil Conservation News" I have decided to write you my impressions of the erosion control program on my farm.

My family, consisting of wife and three boys tired of moving around. So two years ago I bought this place for a permanent home.

The farm was in a very run down state but there was evidence that it had been a good farm. The fields were cut with numerous gullies and were badly washed. Some of it was apparently useless. Silt had washed down from high denuded areas to cover one of the big fields still in cultivation. After heavy rains the silt from the upper slopes would bury large patches of the growing crops. It did not take me long to realize that something had to be done, but I was at a loss as to how to go about it.

When the Soil Conservation Camp was located at Brownwood I lost no time in contacting those in charge and in February 1936 signed a Co-operative Agreement. Since that time a great deal has been done.

A part of the farm was ready for planting in the usual straight row style, but the other fields were prepared for planting on the contour. I followed the land use and cropping plan worked out by the technical men and planted strip crops of Sudan grass and cow peas. The strips are growing well with the row crops planted on the contour between the strips.

One of the worst places on the farm was a deep gully. This was plowed in and planted to a broadcast crop of Sudan grass. This grass is up to a good stand and one can hardly imagine the gully's former condition.

Another place decidedly improved is a low spot that caught and held the run off after each rain. For days and sometimes weeks this spot could not be farmed after rains, so the acreage was of no value and grew up in weeds and objectionable grasses. A diversion terrace was put in to divert water from the plot, and I now have a good stand of cane on it.

I have built about 3,000 feet of terraces on land where they were necessary. The "out field" on the eroded slope has been contour ridged and sodded with Bermuda grass for a permanent pasture. This pasture also took in about 11 acres of land permanently retired from cultivation. Gullies on this area, as well as in the native pasture, have been treated and further cutting and washing is a thing of the past.

I am very much "sold" on contour cultivation and strip cropping as well as all the other erosion control measures that have been used.

. . . interested farmers are invited to visit my farm and see the erosion control program that has been instituted on it under the direction of the Soil Conservation Service.

Sincerely,

(Signed) H. V. Hoover

BLACK LOCUST TREES CONTROL GULLY

According to Mr. L. Q. Pittman of near Dublin, Texas, black locust trees have done a real job in stopping a large gully on the J. D. Walker farm. Twenty four years ago Mr. Pittman's father, who owned the farm, planted black locust trees on the clay banks of a gully that was then about one hundred feet long and five feet deep.

The trees with the aid of Bermuda grass have done such a complete job of stopping the gully that today it is almost level with the ground around. Practically all of the trees have been cut for posts at least once and the sprouts have made a good growth since the original trees were cut, Mr. Pittman states.

Green Creek Watershed Project
Dublin, Texas

* * * * * *

HE STARTED HIS OWN EROSION CONTROL PROGRAM

When W. L. Rabbe, Coryell City farmer, submitted his application to become a Cooperator with Camp SCS-T-26 at Gatesville, Texas, in November, 1935, he was greatly disappointed to learn that the taking of Cooperative Agreements had been discontinued temporarily. Mr. Rabbe, however, had become so enthused over the complete coordinated erosion control program and had watched the work so closely on his neighbor's farms that he made immediate plans to institute an erosion control program on his farm himself.

In the early months of 1936 the writing of Cooperative Agreements was once more started. Mr. Rabbe was almost literally "on the doorsteps of the camp" with his application. Technical men who went out to survey the farm and work up the necessary details for writing the Cooperative Agreement were both delighted and surprised with what they found.

Mr. Rabbe had terrace lines run and terraces were being constructed where needed. Along some of the lines 30 foot strips had been sown to oats, the intention being to use the strips for protection and construct terraces after the strips were harvested. Since it was not possible to care for excess water from the terrace system on a pasture or woodland, Mr. Rabbe had laid out and started excavation work for a sodded outlet channel. Lines for strip crops had been run on one side of the fields and the strips planted to oats and wheat.

A check of the soil and erosion map made by the technical men of the camp staff revealed that the land use and erosion control plan that Mr. Rabbe was following on his farm conformed exactly with the plan recommended by the Soil Conservation Service.

Mr. Rabbe has a 52 acre pasture, well sodded with Bermuda. While this pasture was established primarily for erosion control, Mr. Rabbe says that from a land utilization standpoint it is worth as much to him as any other equal acreage on his farm. Furthermore, the fact that erosion is being controlled on the pasture renders the entire farm adaptable to a practical and economical erosion control program.

"The whole land utilization and erosion control program is nothing more than common sense farming and application to the job," says Mr. Rabbe.

After the Cooperative Agreement was signed in the early spring, he cooperated in every way in doing everything he could to push along all phases of the erosion control program since he stated he was thoroughly convinced that any interference with crop production this year would be more than off-set in the future by the protection of his farm from erosion.

From Camp SCS-T-26
Gatesville, Texas.

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STRIP CROPS EFFECTIVE

By

W. Albert Porter
Duck Creek Project, Lindale, Texas.

Two farmer built terraces on the T. S. Sharman farm, well protected with strip crops of oats, held during a four inch rain which fell on May 9, following a 4.5 inch rain on April 28. Two other terraces not stripped in the same field broke under the hard rains.

The stripped terraces in the field were alternated with those not stripped and each of the two stripped terraces caught and held the water from the terraces above.

During the same rains it was interesting to note that a field on the John R. Bowdoin farm which was protected with a good system of strip crops alone showed practically no erosion damage in contrast to a similar field unprotected by strip crops where there was great damage by sheet erosion.

LOUISIANA NEWS

FARM WOODLAND PROFITABLE

By

W. E. Dee, Project Manager

W. D. Perryman, cooperating with the Soil Conservation Service program in the Minden area, has for many years given the same consideration to the development of his farm woodland as he has to any other part of his cropping program. As a result of this careful attention given to his woodland Mr. Perryman has for a number of years been receiving a nice income from the area.

"I believe that to receive the greatest income possible from any farm," Mr. Perryman states, "that each acre must be used for the crop to which it is best suited. I long ago decided that the best possible source of income to me from this 48 acres on my 120 acre farm would be to keep it in woodland instead of putting it into cultivation. I am glad to say that I was right.

"A farm woodland, to be profitable, must be looked upon as a definite part of the farm's cropping program. I have tried to take special care of my woodland, always being careful about fire.

"When I need wood or timber I take out trees that are scrubby or crooked. This leaves a mighty pretty stand of tall, straight trees."

Looking back over profits derived from his woodland, Mr. Perryman says: "I've had lots of chances to sell my timber, but I told my wife that keeping it was just the same as money in the bank. In a way that statement has proven itself. In the past two years, practicing very selective cutting, I have sold around $170.00 worth of timber. Any time I need to build a little house or make some improvement around the place, I don't have to go to the saw mill. I can get rafters, studding or all the posts I want right here on my own place.

Mr. Perryman states that aside from the monetary returns he receives from his woodland there is no erosion problem whatever on the wooded area. "This land is not being washed away," he says, "and in

this woodland I can look forward to a gradual increase of returns. I might make a few good crops on the area but I would soon have nothing but a wasted piece of land in later years."

Mr. E. V. Jotter, forester from the Washington office of the Soil Conservation Service recently inspected Mr. Perryman's woodland and was high in his praise of the woodland management being practiced by the owner.

Tree plantation made on steep or eroded land retired from cultivation in the Minden project area are in excellent condition, according to C. B. Webster of the regional office at Ft.Worth. "There has been an excellent growth since my last visit in January," Mr. Webster, who has recently taken over the regional nursery work, said.

SUMMER STRIP CROPS

Summer strip crops of cow peas and sorghum have been planted on the winter strips occupied by oats in the Haughton, Homer and Minden soil conservation camp areas. By planting peas and sorghum on the winter strips occupied by the oats it is possible to have the benefit and protection of an almost continuous close growing crop on the strips, says W. E. Dee, Project Manager.

STRIPS ABOVE TERRACE CHANNELS VERY EFFECTIVE

The unofficial rainfall record in North Louisiana during the first five months of 1936 showed a deficiency of 11.33 inches when compared with U. S. Weather Bureau records from 1887 to 1930. This deficiency prevented a normal growth of oats on strips and in many cases the lack of moisture so retarded growth of strip crops that recent rains were too late to develop even average growth.

Even in the most extreme cases of stunting of oats by drouth, according to J. W. Hammett, Assistant Soil Conservationist at Minden, where the oats were planted in strips just above terrace channels the growth was sufficient to prevent soil from silting into the channel during a recent 3.94 inch rain.

"In almost every case where strip crops of oats or other close-growing crops were not planted a marked degree of silting was noticeable in terrace channels, and in some cases the silting was almost serious enough to cause terrace breaks."

R. B. Moore, Minden project engineer, following a trip of inspection after the heavy rain said: "There is a very obvious contrast between terraces protected by strip crops and those that are not. The strips of close growing crops slow down the run off of rain water so there is practically no danger of washing even when the rainfall is intense."

Louisiana Project 1,
Minden, La.

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ESTABLISHING FIRST MEADOW OUTLET

By

W. E. Doe

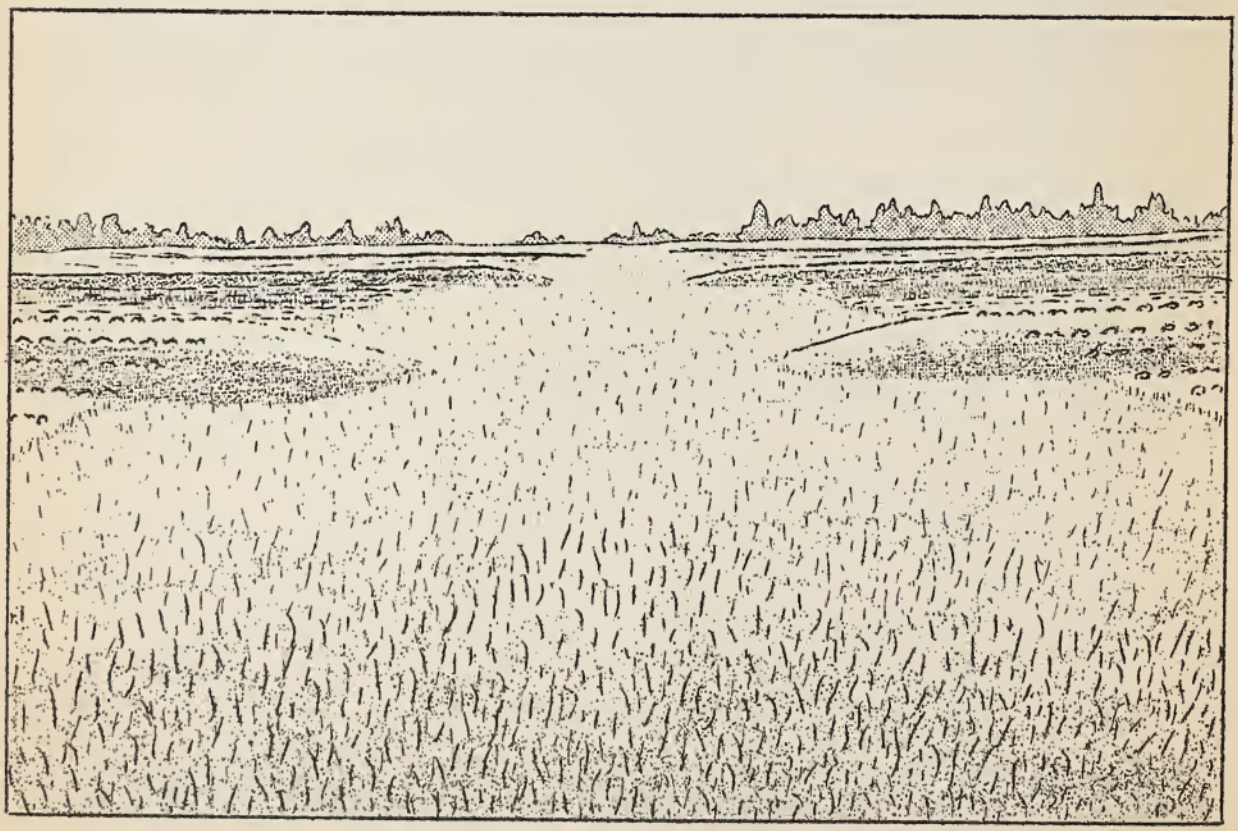
The first meadow outlet to be used by the Soil Conservation Service in North Louisiana for carrying excess water from a terraced field is being established on the farm of Mr. Atkins Bailey, a cooperator with the Homer ECW Camp. Other meadow outlets will be established soon in the Minden project and attached camp areas.

Meadow outlets are designed to replace, so far as practical, terrace outlet channels. While sodded outlet channels effectively handle excess terrace water, meadow outlets will also safely handle the water and supply a forage crop in addition.

The site selected for the meadow outlet on Mr. Bailey's farm is a typical natural drain or "branch" grown up densely with underbrush. All of the underbrush, of course, has been cleared away and the ground plowed in and smoothed over until there is only a gentle slope.

Parallel strips of Bermuda sod will be placed about four feet apart, cross-wise to the slope. These strips are 12 inches wide and are placed in properly prepared trenches. The width of the sodded part of the meadow outlet will be about twenty feet. After the sodding which is now being done, is completed, sudan grass will be sown between the strips and along the sides of the slope, covering a space approximately 40 feet wide on either side. The completed meadow outlet will have an over-all width of 100 feet and is expected to produce forage crops in addition to serving the important erosion control factor of caring for excess terrace water.

"I certainly like the idea of this meadow outlet," Mr. Bailey. "I see no reason why I shouldn't get a good feed crop from the strip of meadow and from what I have seen of vegetation as an erosion control agency I am confident that this outlet will satisfactorily handle the water from my terraced field. I will also be getting feed from land that produced nothing in the past."



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