RENEW FIGHT AGAINST DROUGHT

Government Seeks Methods of Alleviating Drought Ravages in Future Years Through Water Conservation.

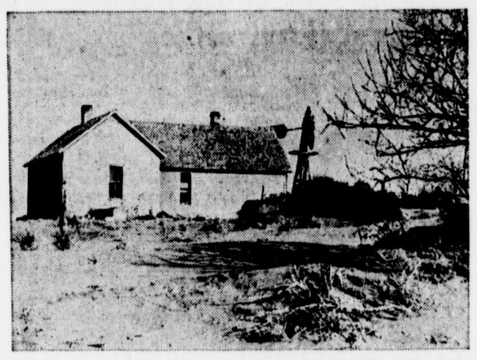
By WILLIAM C. UTLEY

WHILE a blazing sun beats relentlessly on the parched fields of the Northwest and South, man grapples anew with the monster, Drought, in an effort to minimize its destructive effects, and to devise ways of mitigating future ravages. No one can predict a drought, and no one can prevent one, but much can be done to lessen their effects. The drought period through which the country has been passing since 1930 has caused the adoption of methods which will enable us to make better use of the available water in even the driest years.

To meet the immediate emergency government agencies have devised a three-fold program which consists of supplying 55,000 WPA jobs in the Dust Bowl and 20,000 in the South; of making Resettlement administration loans to at least 50,000 persons, and of purchasing a million head of cattle with a five-million dollar fund in the hands of the Department of Agriculture. In the whole country 336 counties had been listed up to July 15 where the crops are considered a total loss, and where efforts will be devoted to saving livestock and alleviating human distress. The Department of Agriculture is buying up some of the stock and the railroads are offering reduced freight rates to ship the animals to fresh pasture, to be returned later when conditions have improved.

Is Desolate Picture.

The drought area presents a sad picture today. The major portion of the spring wheat area has been burned to a crisp. Dakota and Montana farms present an aspect of desolation that veteran farmers say is without precedent. This condition even extends into Minnesota. Fields that were green with grain and where lush pastures grew a year ago, appear today as only a blackened expanse. The range country is burned so dry that it cannot support either sheep or cattle.



Once a comfortable farm home now surrounded by a Sahara-like expanse of shifting sand and dust.

Millions of grasshoppers are everywhere. Even the small spots that have escaped the ravages of the drought have been desolated by this plague. When they complete their work in one field they fly to another. It is not uncommon, according to travelers, to see some automobile stopped so that the battered bodies of thousands of these pests may be scraped from the radiator and windshield.

Hundreds of farmers whose lives have been spent on these farms are today loading their few possessions in autos, trucks and wagons and starting out for some other section of the country, where they will attempt to start life over again. Today, their work of years is completely gone and they have become discouraged with the struggle to obtain a living for their families in the stricken area.

Offer Local Relief.

To help these unfortunate folk, the Resettlement administration has declared a one-year moratorium on rural rehabilitation loans on between 25,000 and 30,000 farms in the drought-stricken counties throughout the nation. At the same time the Works Progress administration has started a program to provide jobs, digging wells, building farm to market roads, and terracing land. About $18,000,000 will be available for crop loans and feed, and the RA will spend $1,700,000 monthly on $20 doles to suffering farmers.

It is estimated that between 3,000,000 and 5,000,000 farm dwellers have been seriously affected by the drought. A total of 204,000 families has been listed as dependent on relief. Crop losses are estimated as high as $300,000,000.

In the opinion of many, including President Roosevelt, unless something is done to check the drop in the water table, the now fertile regions of Nebraska, Iowa and Kansas will be drawn into the great Dust Bowl. The consequences of this can hardly be imagined. Our entire national economy would be displaced.

Long Range Program.

Experts say that this can be stopped by a long-range program of permanent works. In accordance with their findings the government has announced a permanent anti-drought program divided under the following heads:

1. Soil Conservation. This is executed largely by the Soil Conservation service of the Department of Agriculture. Grass is planted to prevent erosion and to encourage the proper type of furrowing.

2. Shelter Belt Development. The Forestry service is in charge of this. It is designed to be 100 miles wide and 1,000 miles long. Half-mile tracts, each a few feet thick, have already been planted along the front. More than two million dollars for a project estimated to cost seventy-five millions have been spent, and congress has refused to make further funds available.

3. Reclamation. Irrigation and dam projects are being carried on by the Department of the Interior in the western states. Under the Taylor act to preserve grass the department is also improving range operations.

4. Resettlement. The Resettlement administration is buying up 1,282,522 acres, returning them to pasture and resettling families at an average cost of $4,500 each.

Drought Swings East.

In contrasting the 1936 drought with that of 1934, one of the conspicuous differences is that the dry center has swung further east and southeast, while the extreme Southwest, hard hit two years ago, is in relatively good condition. This spring, as the drought area began to take form, it stretched in a broad band from a little west of the center of Montana to Kentucky, Tennessee and South Carolina. As the season advanced the arid belt spread northward and northeastward, even reaching into the New England states. Heavy rains during the first part of July brought some relief to Tennessee, Kentucky and some parts of Virginia, although not enough to permanently relieve the situation.

By the beginning of July two great islands of extreme drought had developed. One lay like a great blot through the middle South from the Mississippi to and beyond the Appalachians, while the other crossing the Canadian boundary, ranged from Minnesota to western Montana and south through Wyoming and Nebraska. In these areas crops this year are less than 35 per cent of normal. Between these two sections crops ranged from 35 to 65 per cent of normal.

Just how this crop damage will compare with 1934 cannot fully be determined as yet, but the following table shows that in at least eleven of the affected states the drought is more severe:

State.	Percentage of Normal Rainfall. 1936.	1934.
North Dakota	32	59
South Dakota	49	62
Montana	52	74
Minnesota	60	69
Missouri	37	49
Arkansas	40	68
Kentucky	26	76
Tennessee	23	96
Ohio	44	57
Indiana	46	61
Illinois	43	49

These figures by themselves, however, give only a partial picture of conditions. Much depends upon when the rain falls and how much of it is retained in the ground, pools, ponds and other reservoirs.

Evaporation Heavy.

Agricultural experts point out that during a few weeks of the early growing season, vegetation may thrive on the accumulation of soil water which extends to about the depth of the growing plant roots but after this period from seven to eight inches of favorably distributed precipitation is the minimum requirement for the production of average yields unless temperatures are abnormal.

The latter play an important part, for the higher the temperature and the hotter the winds, the greater will be evaporation. The excessive high temperatures and hot winds of this summer have added immeasurably to the seriousness of the situation. For example a small pond may lose more water through evaporation than livestock actually drink. If it dries up and the farmer is forced to water his stock out of wells he reduces the ground-water supply, the level sinks, and presently the water situation becomes acute. Multiply this by hundreds of thousands of such instances and it is easy to understand the stories of want and suffering that have come out of the West during the summer.

The solution of this problem in the future is simple, according to government experts. Water is a natural resource, they contend, replaceable but not inexhaustible. The only way to be sure of having it in dry times is to save it in wet times. Upon this is based the government's four-fold permanent program.

The first move is to slow down and lessen the loss of snow-water and rain-water, either by methods of cultivation which retain the water in the ground, or by impounding water in dams. The latter may range from huge engineering enterprises like Norris or Boulder dam to the simple dam which may be constructed by a farmer.

Whether the object is to prevent floods, reduce erosion, or prepare against drought, ground water storage methods are the same. Trees are planted on the steeper and less fertile slopes, medium slopes are covered with cover crops such as alfalfa or with sod, and land with marked slopes is plowed at right angles to the slopes, sometimes with strips of sod at intervals between the furrows.

Methods Prove Effective.

There is little question but that these methods are effective, and that if they were sufficiently widespread they would tend to equalize the flow of streams, would feed ponds and springs further into the summer, and would maintain the level of water in wells. These practices have been demonstrated by the Soil Conservation service; in the work of the CCC; in the conservation operations of TVA; and by other federal and state agencies.

When water does not have time to run off it saturates the ground, which becomes a monster reservoir. If plants have their roots well down by the time the drought begins they are better prepared to withstand a long siege of dry weather.

To co-ordinate with this program of ground water conservation is the plan for storage of water behind immense dams. The great dams now completed or in construction on the Tennessee, in the upper Missouri system, on the Columbia and on the Colorado will furnish a larger flow of water during dry seasons. Boulder dam can hold two years' normal flow of the Colorado river as a margin of safety for the irrigated lands downstream. By holding back the water of the Clinch river, a tributary of the Tennessee, the Norris dam reduced the flood crest of the main river at Chattanooga by three feet last March. When the river shrank to unprecedentedly low levels under the blast of the drought in June, the gates were opened, and engineers announced that they had enough water to maintain navigable depths in the lower Tennessee even through an extreme drought period.

A typical field with crop less than hat-high.

Just what part each system should play in the conservation of water is a point of controversy among engineers. A number of engineers contend that more emphasis should be placed on smaller dams to control the water run-off at the source. A conference on this phase of the work is to be held in Washington in September, immediately following the World Power conference.

Despite tremendous crop losses in the dry regions, the Agriculture department has assured the country that there is enough food on hand to feed the nation for the next 12 months, although supplies of many staple commodities are below normal. Prices of many foodstuffs will be higher because of the drought.

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Sheep Seeking Water in a Country Parched for Lack of Moisture and Ruined by Grasshoppers.

Blooded Horses Are Revered in Kentucky.

Prepared by the National Geographic Society, Washington, D. C.—WNU Service.

SOME 46,000 acres of land, much of it magnificent virgin forest, will be included in the Mammoth Cave National park in Kentucky. In the long struggle to establish this national park, Maurice H. Thatcher, for many years United States representative from Kentucky, was a prime mover.

Discovered in 1803, Mammoth Cave was considered the largest national cavern in America until the exploration of the Carlsbad caverns in New Mexico. The underground passages are of remarkable extent, probably undermining the entire area of the proposed park development. Almost every dweller in the neighborhood has a cave of his own, to which he seeks to attract visitors.

Underground rivers in which swim eyeless fish are a weird feature of the caves. Besides these there are vast stalactites and stalagmites, the best of which are seen in the part of the cavern reached through the New Entrance. A "frozen Niagara" of salmon-colored rock and a stalactite which, when illuminated by an electric light placed behind it, shadows the perfectly molded form of a beautiful woman stepping down as if to bathe in the subterranean river, are unique.

There are onyx caves and crystal caves; one might profitably pass weeks going through them all. It was in one of these that Floyd Collins met his death.

Beyond Mammoth Cave to the west winds the beautiful Green river known as one of the deepest fresh water streams in the country.

In this neighborhood was shed the first Kentucky blood of the Civil war, when Granville Allen was shot. Families were torn asunder by the difference of allegiance. Few states knew the horror of Civil war as did Kentucky. To understand what war meant to the border people, one needs only to be reminded that Jefferson Davis was born near Hopkinsville, not far from Bowling Green, and that Abraham Lincoln was born near Hodgenville, a few miles to the north.

Birthplace of Lincoln.

At Hodgenville, a stately memorial shelters the humble log cabin in which Lincoln was born. Simplicity marks the place as it marked the great soul it fostered. Visitors pause for a drink from the Lincoln spring.

Memories of Lincoln linger in the very air between Hodgenville and Bardstown. To Knob creek the Lincoln family moved before young Abraham was two years old, and there they lived until he was eight. His earliest recollections, he wrote, were of Knob creek, and how he was saved from drowning there by the quick aid of a chum. Not much chance of drowning in the creek now; it is little more than a rivulet.

If there is a house in the world worthy to inspire music, it is "My Old Kentucky Home," near Bardstown. While a guest in the house, then owned by his kinsfolk, the Rowan family, Stephen Collins Foster composed that deathless ballad, "My Old Kentucky Home."

He wrote the music, it is said, at a desk in the wide hall, the sun streaming through the door opening toward the slave quarters. That selfsame desk still stands in its wonted place, the most precious of Kentucky's furniture relics.

Even without the Foster tradition, the home would be priceless. It makes no attempt at ostentation, but it is peopled with ghosts of the fine old South.

In Bardstown is St. Joseph's cathedral, in which are displayed several original paintings by great masters. They are believed to have been a gift to the church by Louis Philippe.

Not far from the town is Gethsemane, a retreat of Trappist monks, one of two such monasteries in the United States.

Louisville, the city of George Rogers Clark, comes next on your itinerary, northwestward over an excellent highway. It was there that the doughty soldier ended his days in bitterness over the ingratitude of the nation he had spent his all to aid.

At Louisville, too, are the home and tomb of President Zachary Taylor, "Old Rough and Ready." His daughter Knox was wooed and won by Jefferson Davis, then a young lieutenant in the general's command.

To lovers of horse racing, Louisville is a mecca when the Kentucky Derby is run at Churchill Downs.

Where Baseball Bats Are Made.

At the Louisville Slugger factory, baseball bats for many of the famous players are hand-turned by skilled workmen. The second-growth ash comes to the factory in rough billets. These billets are rounded and laid on racks to season for 17 months before they are made into bats. Because ball players are particular about the weight and balance of their bats, each step in the shaping of the sluggers requires the utmost care. Special orders are prepared by hand workers. Thousands of bats, however, are made by machinery.

From Louisville it is a pleasant trip to Frankfort, the hill-encircled capital of Kentucky. The old Statehouse, now a museum, is an architectural gem of pure Greek design. Within it is a self-supporting circular stairway, one of the few remaining. The new Statehouse is a splendid structure, with a magnificent rotunda under the vaulted dome.

It is strangely fitting that Daniel Boone is buried in the cemetery overlooking the capital of the state he helped win from the wilderness. From the path around his tomb one looks down to the broad valley of the beautiful Kentucky river.

The heart of the Blue Grass is the home of the thoroughbred. To one who has striven futilely, baffled by crab grass, to encourage a lawn, the sight of those blue-grass pastures brings mixed feelings. One does not feel outraged to see splendid horses browsing on such lawns, but one is hard put to escape taking affront at cows and sheep feeding on the velvety carpets.

Horses in the Blue Grass are monarchs of the earth. On some of the famous farms the huge circular stables house quarter-mile exercise tracks floored with tanbark.

The thoroughbred is nurtured more carefully than a baby-show contender. A few hours after he is born he is fitted with a halter, that he may become used to the equipment. He is permitted out of doors only when conditions are exactly right. If he scratches his silky skin, he is plastered with antiseptic and put in a hospital. He drinks only from his own special bucket and his diet would be the despair of a French chef.

The owner of one farm cut by a highway has a tunnel under the road through which his thoroughbreds may be led without danger from passing automobiles.

There is a thrill in visiting the stable that housed Man-o'-War, Golden Broom, Crusader, and Mars.

Lexington Is Charming.

In itself Lexington has a wealth of charm as well as historic interest. The University of Kentucky is there, its mellow old buildings scattered over a shady campus. In the study room at the College of Engineering, heavy tables, with tops fashioned of thick sections of a venerable sycamore tree that once grew on the campus, are treasured relics covered with carved names of alumni.

Another fine educational institution in Lexington is Transylvania college, the first school for higher education west of the Alleghenies. There Jefferson Davis and Henry Clay were once students. The library of this school contains thousands of volumes so rare that scholars from all over the world come to consult them.

Ashland, restored home of Henry Clay, stands on the outskirts of the city. On the walk behind the house the magnetic orator and statesman used to pace back and forth planning his speeches.

Through the perfect green of the Blue Grass country you may drive to High Bridge, where a railroad bridge 317 feet above the water spans the Kentucky. Crossing the river on a ferry, you approach old Shakertown, once the home of a strange sect who believed in celibacy and the coming of the millennium.

Another place of interest in a swing south of Lexington is the old fort at Harrodsburg, where George Rogers Clark planned his campaigns. The fort has been restored and is open as a museum.

Old Centre college at Danville attracts you because of the heroic victories of the "Praying Colonels" football team.

At Berea college you see the remarkable results of vocational education brought to mountain whites. One cannot escape a feeling of humility at sight of the industry of these students.

Find Modern Robinson Crusoe

A modern Robinson Crusoe has been found on an island in Lake Appollont (Turkey), where he has been living in the ruins of a Greek monastery for the last two years without seeing a single human being. His companions are a dog and chickens and he lives on berries and the fish he takes from the lake. He is thirty-five years old, looks well and happy and has no intention of leaving his island. "By day I talk with my animals—at night with the stars," he says.

Birds Sanitary in Habits

Birds are sanitary in their habits. They bathe as often as is necessary to keep their bodies clean. Even in times of drought, after a heavy shower, Cardinals and many other kinds of birds may be seen slipping through the tree-tops, emptying the leaf-cups that hold bits of water and letting it fall on their bodies while they go through the same motions as if they were at a pool

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Unique Strike

Recently in Damascus, Syria, the police displeased the guild of thieves and robbers, which, in retaliation, called a strike in the hope that the subsequent inactivity of the police force would result in numerous dismissals. For many weeks the burglars and bandits of the city refused to steal a single thing.—Collier's Weekly.

IF OUR BUSINESS WOMEN DECIDED TO WALK OUT ON US

The harried business man yelled for his breakfast. "Where's the maid?" he called upstairs to his wife. "Resting," was the reply. "And I'm taking the day off, too," Nor had the children gone to school. "Teacher's resting today," they explained.

At the office, the worried man found that none of the stenographers had put in an appearance. Worse still, the telephone was "dead." The morning paper disclosed the reason: "10,000,000 Women on a One-Day Strike," it screamed.

Miss Charl Ormond Williams, president of the National Federation of Business and Professional Women's Clubs, said that she "would not dream of suggesting that women go on strike." But, she pointed out, "the possibilities opened up are so upsetting that I think we should all consider how to avoid them."

According to Miss Williams, nearly 2,000,000 women are employed as clerks in the United States, more than 3,000,000 in domestic or personal service, 5,969 as postmistresses, countless others elsewhere.

"One interprets Miss Williams' remarks as meaning that she is convinced that there is a good deal of baloney in the talk about eliminating women from business and industry," wrote Fred Betts ir the Syracuse Herald. "We concur."—Literary Digest.

A Little Bit Humorous

Modern Miss

The bright young thing came down to breakfast very late.

"Good-morning, daddy," she said gaily. "How much are you going to give me for my trousseau?"

Father looked up from his paper.

"Trousseau?" he snorted. "But I didn't even know you were engaged."

"Goodness," replied the modern daughter, "don't you ever read the papers?"

OR GIVE HIS WORD

"They say Blank is very close."

"Close? Why he wouldn't even spend a vacation."

Hearing of Angels

Simpson — Whatever induced your uncle to marry the widow of a man who was hanged?

Jimpson—He has been married to widows before, and says he was tired of having the virtues of a former husband flung in his face.—Tit-Bits Magazine.

Round and Round

"At twenty-six you left the farm and came to the city. And for 30 years you've been working like the dickens. What for?"

"To get money enough to live in the country."

A Whopper

"Yes," said the angler, finishing his story, "it was rather awkward getting that big fish home. I had to wait for a freight train."

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