

# Care Needed To Conserve Water Supply

By JOHN W. SARGINSON  
District Ranger, Rogue River  
National Forest

Water—too much or not enough is a matter of current discussion. Eroding creek channels and bottom land were much in evidence on a recent trip to Ashland. It is understood the Emigrant reservoir, totally dry, filled to capacity with water and silt in a matter of hours. The result of uncontrolled water-floods. In neighboring California we find the reverse to be true; range and crop land drying, stockmen looking elsewhere for feed, a critical power shortage and in some places domestic water a premium—the results of drought. Fortunately we in Klamath basin have only been slightly inconvenienced.

Generally we are quite complacent in such matters until we are directly affected. A lumberman thinks in terms of timber, a stockman in terms of grass, a sportsman in terms of wildlife and so on. The life blood of the Klamath basin is land and water. Our economy depends upon how these basic needs of civilization are managed. Mismanagement is a matter of history.

**Theory Wrong**  
The idea that water is inexhaustible has been proven a fallacy by recent events. The manner in which water becomes available to man is indicated on the accompanying diagram which traces the raindrop from the cloud to the ocean. The Upper Klamath lake watershed is something more than just a reservoir with its inflow from a network of streams as indicated by the map. The watershed is a plant and animal community existing under environmental factors of soil, climate and topography.

Experiments in one area have shown that out of every 10 drops of rain, so to speak, approximately seven are evaporated directly back into the atmosphere, one drop is used in the process of vegetation growth and two drops or less are available for use directly by man. It is very evident that water must be conserved.

The Upper Klamath lake watershed comprises an area of some 3812 square miles, approximately two-thirds of the gross area of Klamath county. Water is distributed over this vast area in the form of snow and rain. Along the Cascade divide the annual precipitation approximates 50 inches, while in the more arid parts it only amounts to 10 inches. These areas of low rainfall must be irrigated for optimum growth and the water must come from areas of high rainfall. The maximum capacity of Upper Klamath lake is calculated at 583,000 acre feet. The watershed yields more than twice this amount or approximately 1,399,000 acre feet. At the present time 30 per cent of the water use is for irrigation and 10 per cent for hydro-electric power. Irrigation needs will about double once all desirable lands are put under irrigation.

**Mountains Vital**  
The high mountainous country with corresponding high rainfall is vital to the economic growth of the Klamath basin. A large share of this land is now under the administration of public agencies such as the forest service, Indian service and park service. On the other hand there is considerable acreage under private ownership. All these lands should be managed in such a manner that the watershed values are not destroyed.

Water appears under two conditions on a watershed, as ground water and surface run-off. The vegetative cover, trees, grass and browse are only of direct economic value, but indirectly they affect the watershed. Mismanagement of this cover in many localities has reduced the water yield and has caused untold damage. Some of the more common types of mismanagement are poor timber cutting practices, poor logging methods including skidding of logs, and improper road building, over-grazing of native forage, placing sub-marginal lands under cultivation, and carelessness with fire. The direct effect of cover during a torrential rain is best shown in the illustration. Fortunately we do not have these too often in the Klamath basin. The vegetative cover retards the surface run-off, reduces erosion and keeps the streams clear and reservoirs free of sedimentation.

**Lake Spring Fed**  
The Upper Klamath lake watershed is unique in the fact that much of the inflow comes from springs which have their source from ground water. The effect of vegetative cover on ground water is somewhat an unknown factor, but most authorities have agreed that cover does affect the amount of ground water—which is important since it tends to equalize the flow and acts as a carry-over during drought years. During the dry period the Upper Klamath

lake watershed yield was only 18 per cent less than during normal years. This is quite significant because many watersheds dry up during drought years.

More facts are needed regarding watershed management, but much can be done and misuse of land controlled on the basis of existing information. Most watersheds can be managed on a multiple-use basis, increasing their economic value to the community. However, in some instances especially where domestic and irrigation water are of vital importance the managing of a watershed for the sole value of water may become necessary. A watershed should be managed so that it will bring the fullest benefit to all the people. This cannot always be accomplished by managing it on a one-use basis of timber or grazing. Good management should consider production of the forest products, good clear water supply, flood and erosion control, habitat for wildlife and domestic stock, and attractive recreational opportunities—each given their proper weight in community welfare.

Soil and water are indispensable as far as our economy is concerned.

**Henderson Is Farm Speaker**  
Hoof and mouth disease was forcibly brought to the attention of Klamath basin farmers attending the county farm bureau meeting in Oleno recently.

C. A. Henderson, county agent speaking to the group related the seriousness of the situation and the effect on farmers by its cutting down on livestock production and on consumers by decreasing supplies of meat, milk and cheese.

In discussing drought conditions in California, Field Crops Chairman Frank W. Brown emphasized other possible effects on local farmers other than power shortage. Earl Mack gave highlights on the potato situation. Klamath county's quota of potato acreage has already been taken up, he said. Support prices end this year and have become a political matter.

Mrs. Earl Kerns reported on the county session of the Associated Farm Women and Joan Howell, assistant 4-H club agent, talked on 4-H club work and the need for leaders.

Regular attendance at center meetings, according to John Toffel, organization chairman, generates enthusiasm for the Farm Bureau and what it is accomplishing for farmers. The best center attendance report was given by Lloyd L. Watkins, president of Bonanza center, who said there were over 50 persons at the February meeting. D. O. Hood of Columbia Utilities, talked on telephone lines in general and in Bonanza area in particular at that meeting.

**Basin Poultry Increase Urged**  
A 25 per cent increase in the poultry industry for Klamath county was recommended by the poultry committee of the agricultural planning conference. The committee met March 2 in room 204 of the federal building. They estimate that Klamath county is consuming 20 to 25 per cent more poultry products than are produced locally.

The group also recommended increased egg production during fall and winter months, when egg prices are highest. This can be accomplished by buying earlier hatched chicks and along with that, using better poultry housing.

Committee members present were Stan Soran, Klamath Poultry farm; Jim O'Donahue, route 2; Roy Gooding, Lakeview road; M. D. Settle, Langell valley; Noel Bennion, extension poultryman OSC, and Jim Ellings, assistant county agent.

**Kerns Kernels**  
During the fall and winter J. W. Kerns has brought in considerable fertilizing materials; but like all other dealers, we have been short of the most desirable formulas. However, we have one more car of superphosphate coming during the month of March. Any grower wanting some of the material should contact us at once.

See the new Bean Garden Tractor on display in our showroom. It is a revolutionary development in power equipment for the garden. In the Bean line of equipment we also have in stock for immediate delivery the model 103 20" and 303 40" Bean rubber spool potato slicers. In the Klamath Basin these slicers are a widely used piece of equipment, and they are available at our store now.

The beautiful new eleven cubic foot International Freezer is now priced at \$388.00.

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**Water**  
Chart at right indicates beneficial effect of ground cover on surface runoff and siltation. Cover retards runoff and reduces erosion of fertile top soil. Map below of Klamath county shows area in Upper Klamath lake watershed, approximately 3812 square miles.

**Watershed Management Is Vital Factor**

**GOOD GROUND COVER.**  
60-75% of ground covered with plants & litter.

**FAIR GROUND COVER.**  
37% of ground covered with plants & litter.

**POOR GROUND COVER.**  
10% of ground covered with plants & litter.

**WATER RUNOFF**  
2% of that falling per hour  
SOIL LOSS  
0.05 tons per hour from every acre

**WATER RUNOFF**  
14% of that falling per hour  
SOIL LOSS  
0.5 tons per hour from every acre

**WATER RUNOFF**  
75% of that falling per hour  
SOIL LOSS  
2.55 tons per hour from every acre

**Transpiration**  
**Precipitation**  
**Evaporation**  
**Rain**  
**Snow**  
**Runoff**  
**Ocean**  
**Spring**  
**Ground**  
**Lake**  
**Water**  
**Rock**

Photograph taken from point north of Modoc Point shows cultivated fields and pine groves in foreground, Upper Klamath lake reservoir in center and timbered slopes of Cascade divide. The diagram indicates the cycle water passes through in reaching soil. Only about 10-20 per cent is available for use by man.

Other grain companies have also indicated interest in local storage and it is probable, according to some growers, that practically all of the crop in the near future will be thrashed into trucks.

The foundation of the Archer-Daniel-Midland elevator will have an 18-inch steel reinforced concrete floor with 7½-foot concrete wall as a base for the timber crib construction of the 24 bins. Overall floor space will be 170 by 54 feet and it will be 88.6 feet high.

Capacity will be 275,000 bushels and the total weight of the building will be 7500 tons.

Cleaning equipment will be installed to handle 10 cars of grain a day. By cleaning here, waste from the grain upon which freight has been paid in the past will be kept here for livestock feed.

O. J. Clark, Portland, general superintendent, was here this week to confer with the local manager, A. E. Hutchinson, formerly of Lakeview and Pendleton.

W. E. Melena of The Dalles is the contractor and work will be completed by August 1, it is expected.

Hans Norland Fire Insurance, 123 N. 6th St.

**Anderson May Quit Agriculture Post**  
MINNEAPOLIS, March 11 (AP)—Secretary of Agriculture Anderson said here Wednesday he was "definitely considering leaving the president's cabinet to accept the nomination for senator from New Mexico," his home state.

Anderson told newsmen, however, that his "first duty is to President Truman and I would have to reach an agreement with him before taking any action."

He said friends from New Mexico and in Washington were urging him to take the step.

Anderson stopped here en route to Valley City, N. D., where he will speak at a business and professional men's meeting.

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**CAVALCADE OF HISTORY**  
Born: Salem, Ill., March 19, 1860. When only 36 his famous Detroit speech of 1896, ending: "You shall not crucify Mankind upon a Cross of Gold," won his first nomination for President. Led the Democratic Party for 25 years. Remembered as: "THE COMMONER." Died, Dayton, Tenn., Sunday, July 26, 1925.  
WM. J. BRYAN  
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**Insurance Rates To Be Dropped**  
SALEM, March 11 (AP)—State industrial accident insurance rates will be reduced substantially for the year beginning next July 1, Governor John H. Hall announced Wednesday.

The governor said the amount of the reductions have yet to be worked out for each industry. The reductions were made possible by large amounts of money on hand in the trust fund.

**The governor also approved an expanded industrial safety program, with employment of 10 more safety inspectors.**  
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