

# The Redmond Spokesman

Published at the "Hub City" of Central Oregon

VOL. 2, No. 49

REDMOND, CROOK COUNTY, OREGON, THURSDAY, JUNE 13, 1912

\$1.50 PER YEAR

## OF INTEREST TO FARMERS

### EVAPORATION AND CONSERVATION OF SOIL MOISTURE

BY W. L. POWERS

The recent period of abundant rainfall has left the soil unusually well supplied with moisture, and with the tremendous possibilities of our growing season just begun it seems desirable to direct attention to the most approved methods of conserving this supply of moisture for the use of crops throughout the dry months.

The efficiency of soil water may be measured by the actual useful work performed by a given quantity of this water. To increase the efficiency and maintain an optimum supply of water during our growing period, requires a careful consideration of the reasons for the loss of water, and of the means for maintaining a suitable supply.

A greater average moisture content may be maintained (1) by direct addition of water in irrigation; (2) by increasing the water capacity; or (3) by checking the losses of water.

Omitting the first method, the water capacity of soil may be increased by changing the texture and structure. Any treatment such as liming or tillage which will increase the mellowness of the soil and introduce more pore space, makes it possible for the soil to absorb more of the late spring rains.

The only way of modifying the texture of soil is to increase the organic matter content as the percentage of sand and clay is fixed. In experiments conducted by the writer it

was found that the water capacity of a soil was increased on an average of 8 per cent for each per cent of manure used. After applying manure to the field there was a gain in moisture about the manured strata, even before any irrigation or rain was received.

The soil's supply of moisture is lost in three ways, viz: percolation, transpiration and evaporation. The former two of these can be little controlled.

(a) Percolation can be lessened in irrigation by using only moderate amounts of water, and this should be much less for cultivated crops than for meadows. A loose, cultivated surface will prevent percolation of spring rains over the surface. (b) Transpiration is the passage of water up through the plant and out through the pores in the leaves, and will vary somewhat with the drought resistance and water requirements of different plants. The loss is greater in proportion to the amount of energy used in securing the water. Lifting water from depths, poor cultivation, poor fertility conditioned, and arid weather elements all have some effect on the water cost of dry matter.

(c) Evaporation is responsible for the greatest waste of soil moisture, and it is this loss that must be understood and controlled. Evaporation consists in the absorption of water in the form of vapor by the air. The capacity of the air for vapor depends on temperature percentage saturation of the air, wind movement and other atmospheric conditions. Evaporation from a water surface is a good indicator of the mean effect of all weather conditions upon evaporation of soil moisture. Measurement of evaporation is as important as measurement of rainfall. The annual evaporation here from a water surface is something like four feet. We find by experiment that wind movement has more effect on evaporation than temperature and humidity combined. The mean increase in evaporation per mile wind movement was found to be 1 per cent, and a 3-foot wind-break saved 21 per cent of the loss of an exposed water surface. Evaporation from a soil surface depends

on the above and the condition and wetness of surface and character of soil. Experiments conducted all over the west show that a wet soil surface may lose more than a water surface, but where the top layer of soil becomes dry there is a saving by storing water in the soil tank. If we call the loss from a water surface 100 per cent then the unmulched soil tank lost 56.7 per cent of the loss of the water surface; a 1-inch mulch 31.1 per cent; a 3-inch mulch 22 per cent; and a 9-inch mulch only 13.3 per cent of the loss of the water-free surface. Use of furrows in irrigation saved 22 per cent.

Mulching is at present the most practical means of checking evaporation, but its importance is not fully appreciated and made use of.

Mulches absorb rainfall and lessen run off; lessen capillary rise and evaporation; aid ventilation; encourage deep rooting and make the plants more drought resistant.

The mulch must be provided promptly to be most effective, and the aim should be to stir the upper strata which is to form the mulch so that it will dry out rapidly, and it will then interrupt upward capillarity from below. The kind of mulch which is most effective is one that contains a good proportion of crumbs from the size of a pea to the size of a walnut, and is kept dry by cultivation throughout its entire depth. To provide such a mulch it is necessary to cultivate when the soil is yet moist enough to hold together in small lumps. In cultivating, the soil should be turned, but not pulverized to a dust. The time to cultivate must be modified for each particular soil, but in general level cultivation every twelve or fifteen days to a depth of 2 or 3 inches gives the most effective and economical kind of a mulch. Cultivation must be most frequent early in the season and should always be given after heavy rains to prevent crusting. The depth of cultivation should be varied slightly, and a sandy soil that is naturally mulched will lose more moisture if the mulch is fined or inverted so as to expose moist soil unnecessarily. In places where the grain was put

in early and the ground has been compacted by spring rains, it is desirable to use such a tool as the hallock weeder. Potato ground and cultivated fields need early harrowing and continued, level cultivation to conserve moisture and keep weeds down. Alfalfa fields go through the dry months in better moisture condition and make more growth with lower percentage of foreign matter where they have been thoroughly cultivated in early spring with the alfalfa weeder and the loose earth rolled or harrowed down, making a valuable mulch. Early spring plowing and plowing for fallow should be harrowed promptly after plowing and after heavy rains to kill weeds and maintain a mulch.

W. L. POWERS,  
Supt. Crook Co. Demonstration Farms.

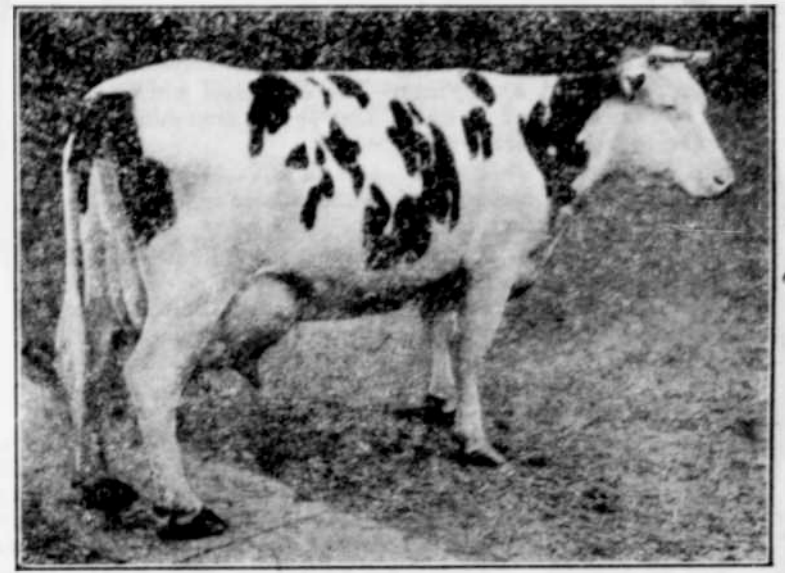
### BRINGING IN MORE GOOD GRADE DAIRY COWS

C. P. Judge has posters out announcing that he will arrive here today with another lot of good dairy cows, calves and bulls and have the same on sale at the railroad stockyard and at Albert Johnson's, one mile north of the depot. Mr. Judge states that these cows and in fact the entire shipment is the best lot of dairy cattle ever brought into Central Oregon.

### CARD OF THANKS

I wish to express my deepest appreciation and my most heart felt thanks to the good people of the City of Redmond for the great kindness they showed to me and mine in the last illness and death of my dear wife. To every one that in any way contributed to our help and relief I wish to express my personal gratitude, and to pray that He who watches over us will abundantly bless you for your kindness to a stranger that is within your gates. Very sincerely and gratefully yours,

W. L. SIMPSON  
and Children.



## NOTICE

I will arrive in Redmond on or before June 13th with two car loads of High Grade Dairy Cows. Holstiens, Big Jerseys, Red Durham and Ayrshires. All For Sale.

C. P. JUDGE

Oregon Hotel Office.

## UNION PICNIC JULY FOURTH

### CHURCH FORCES TO UNITE IN CELEBRATION ON OUR NATAL DAY

Church members, members of the various Christian young people's societies and Sunday Schools in Crook county are combining their forces in a big picnic to be given on the 4th of July at the Warm Springs Indian Agency at a point near Mecca.

The unique event was instituted by the Crook County Christian Endeavor Union at a meeting held in Metolius last February. The executive committee of the Endeavor Union has charge of all arrangements. It has sent out invitations to every church organization in the county, regardless of creed or denomination, to take part in this big event.

The purpose of the gathering is mutual acquaintance and a good time. The railroads have given a special rate of one and one-third fare, and a special train will probably be secured for the occasion.

Everyone who comes is requested to bring their own luncheon. Provision has been made for conveyance from the station to the picnic grounds. No fireworks of any kind will be permitted.

An elaborate program is being arranged by a special committee, including music by a brass band, as well as games of various kinds, and a Fourth of July oration by a prominent speaker.

Further particulars can be had by consulting the officers of the Endeavor society nearest to you.

### DESCHUTES BAPTIST ASSN.

The first annual meeting of the Deschutes Baptist Association will be held in Redmond this week beginning Friday evening at 8 o'clock, and continuing through the following day. There will be three sessions on Saturday, at 9 a. m., 2 p. m. and at 8 p. m.

In addition to the delegates from the churches, Rev. Fred Parker of Portland, corresponding secretary of the Oregon Baptist State Convention, will be present, and Dr. C. A. Woody, supt. of the Rocky Mountain and Coast district, is also expected.

The initial sermon Friday evening will be preached by Rev. D. Loree. Organization, reports, routine business and conferences will take up most of the time Saturday morning. A sermon will be preached at 11:30. A basket lunch will be served at the church at 12:30 for the delegates and members in attendance. The afternoon and evening sessions of Saturday will be given over to interesting discussions and addresses. The meetings will be open to all.

## GROUND IS SOAKED WITH HEAVY RAIN

Last Friday afternoon at about 4 o'clock the heaviest rain storm of the season visited this section, and continued well on into the evening. Some hail fell during the storm, but not enough to do any serious damage to growing crops.

The rain was driven from the direction of the west, and the fall of water was so great that nearly all of the roofs on store buildings in the city leaked. In different parts of the city miniature lakes were formed, and the ground received a thorough soaking.

So far this season the rain fall has been greater than in a number of years, and the assurance of a big crop is now certain in all kinds of farm products.

### BEND TO CELEBRATE

Bend is going to have a three-day 4th of July celebration, Thursday, Friday and Saturday. A number of attractions have been secured for the event to keep things moving all during the three days.

### GOOD MEAT, RIGHT PRICES

At a low estimate from \$60 to \$75 a week is going from Redmond to the meat markets at Sisters and Prineville, sent by people here who desire satisfactory meat and reasonable prices. Frank Zumwalt has built up a good trade in his Sisters meat market from the people here. This he has done by giving satisfactory service and reasonable prices. Read his ad on page 3 of this issue, and let him fill your wants in the meat line.

### OPENING SERVICES

The Baptists will open their new meeting house next Sunday, June 16 with appropriate services. The sermon will be preached at 11 a. m. by Rev. Fred Parker of Portland. Rev. H. B. Foskett will preach at 8 p. m. All citizens not engaged in worship elsewhere are most cordially invited to attend. Bright inspiring musical services. The evening meeting will open with a praise service. Books for all.

### K. P.'S ELECT OFFICERS

At the regular meeting of the local K. P. lodge held Monday night the following officers were elected for the ensuing six months:

C. C.—Ashley Forrest.  
V. C.—B. A. Kendall.  
Prelate—W. S. Rodman.  
M. of W.—J. R. Roberts.  
M. of E.—W. E. Young.  
M. of F.—R. K. Olson.  
M. of A.—I. A. Buckley.  
I. G.—Geo. Kohl.  
O. G.—B. F. Hensley.  
The above officers will be installed in office the first meeting night in July.

Spokesman Classified ads bring results—try them—don't cost much

## PIONEER DEPT. STORE

### Bargain Opportunities Never Greater Than Now

The doings at this store during the month of June will be full of interest to you. There are many needs for summer that by buying now will save you lots of money.

## CLOTHING DEPT.

We are going to make a big clean up in this department, and in order to do so have lost the regular prices, but we have made new prices that have no regard for the regular prices.

## Come in and you'll be Convinced

### NEXT WEEK SPECIAL

1 lb. can Royal Club Coffee, 38c

Dry Apricots, 12½c lb.

## EHRET BROTHERS

In the Brick Building

We buy Butter and Eggs

Non-Rustable Royal Worcester Corset