

ORGANIC MATTER AND ITS VALUES

ANOTHER TALK BY
PROF. POWERS

Good Productive Land Should Contain 3 to 6 Per Cent—Soils Improved by Increasing Amount of This Organic Matter

By W. L. POWERS
(Supt. Demonstration Farms.)

Organic matter in soils is decayed and decaying vegetable and animal fragments. When in a thoroughly decayed, gelatinous form it is called humus. Growth and decay of plants is the principal agency in the formation of humus. It becomes incorporated into the soil by various mixing agencies.

Good productive soils should contain two to six per cent organic matter in the surface seven inches. Very few sections of the county have such an abundance of organic matter in the soils that its maintenance may be neglected, while most of our soils may be greatly improved by increasing the amount present. The only method by which we can change the physical composition of our soils is by increasing the organic matter content. Organic matter is highly valuable both for its physical and chemical effects.

Chemically organic matter is the chief source of soil nitrogen. Most of our soils seem rather too low in nitrogen when compared with many other Oregon soils. Humus in arid soils contains about fifteen per cent nitrogen while the humus contained in humid soils is only about five per cent nitrogen. Being the residues of decayed plants humus contains in fairly available form, all food elements required by plants. Moreover, the formation and decay of organic matter is associated with great bacterial activity and the formation of acid substances which in turn react on the mineral particles in soils to release potash and phosphorus.

Physically organic matter, through its fibrous or gelatinous nature improves the physical condition of tilth by causing the soil particles to stick together into crumbs giving a good

mellow soil condition. Organic matter improves the moisture content of soils because it acts as a sponge or absorbent and because it keeps the soil loose and easily mulched, that is, it holds the soil particles together in clusters and prevents "puddling" or "running together" and crusting. Vegetable matter in the soils lessens the eroding effect of heavy rains by holding the soil particles in place and by loosening up the soil so the water will be absorbed to a greater extent.

Humus generally is associated with dark color in soils and it is well known that dark surfaces absorb heat while light ones reflect it. Experiments have been tried in which differences of several degrees were obtained where part of a soil was darkened with organic matter.

Run down land more frequently lacks organic matter than it does chemical fertilization. Burning straw or stalks should be avoided for this destroys the organic matter and releases the most costly of plant foods (nitrogen) to the air, leaving only the minerals in the ash.

Farm manure furnishes a limited amount of organic matter and this should be supplemented by green manures, such as rye in the southeast part of the county and especially clover, alfalfa and field peas where they can be grown because they are nitrogen gatherers.

RECORD OF TRANSFERS

Deeds and Patents Filed Recently With County Clerk at Prineville

H. A. Miller to Ruth R. Overturf, ne ¼ 32-19-10, se ¼ 35-18-12, e ¼ se ¼ 24, e ¼ ne ¼ 25-17-11. \$1.

F. W. Neeld to Bend Park Co., It 4, blk 44, Center Add., Bend. \$1.

Northern Pacific Ry. Co. to Oregon Trunk Ry., It 1 of 17-9-12. \$412.

T. F. McCallister to Frederick W. Leverenz, water rights in sec 29-15-10, in sec 8-16-11. \$500.

Harry J. Catlow to Dan Catlow, se ¼ 1-16-12. \$1.

Northwest Tr. & Safe Dep. Co. to Catherine J. Stewart, nw ¼ sw ¼ 36-15-19. \$280.

Lytle Townsite Co. to Bend Park Co., Its in Lytle and Riverside owned by Lytle Townsite Co., and Its 1-2 blk 12, Its 13-14-15-16, blk 13, Wiestoria. \$10.

Bend Securities Co. to Bend Park Co., Its in Riverside. \$10.

Emmett C. Sanders to Frances M. Dickson, se ¼ 26-18-14. \$3000.

A classified ad in The Bulletin is read by hundreds and brings the advertiser good returns for the money invested.

THE FLOCKMASTER.

Keep the best ewe lambs to increase the flock.

When the lambs are weaned put a few gentle ewes with them to keep them from worrying and becoming wild.

Sell the fattening lambs as soon as fit and give the remaining ones a better chance.

Be sure the ticks are all removed. It does not pay to feed ticks.

The ewes and lambs should be kept out of hearing of each other for a time when weaning them.

Give the wethers extra grain and send them to market before the pasture is dried and short.

Sheep are a good medium for increasing the fertility of the farm of the man of limited means.

Don't neglect to keep salt in every pasture.—Farm Journal.

THE PIGS IN SUMMER.

Importance of Furnishing Forage For the Growing Porkers.

The late summer season is a trying time upon pigs. Green pasturage is likely to be at its poorest at that time, writes H. E. McCartney in the National Stockman. Crops that are most succulent and appetizing early in the spring and late in the fall have a habit of practically dying down during the summer time. On the writer's home farm a large blue grass pasture was used for years. For about six weeks each summer it was about as bare of green feed as the stubble fields adjoining it.

There are several different crops that will supply summer feed. Alfalfa that grows through the whole season is no doubt the peer of all other permanent crops. A mixture of oats, peas and rape or oats, clover and rape has proved to be about the most satisfactory when the ability to furnish green feed during the summer is considered. The writer recently read of an experiment station test where the amount of gain made on hogs from different kinds of forage was compared. Very surprising and striking differences were given. From blue grass less than 400 pounds of pork was made per acre in the entire season. From alfalfa about 650 pounds of gain were reported. The greatest of all was from the mixed crop of oats, clover and rape. More than 800 pounds of pork per acre was reported.

There is another strong reason besides the greater amount of gain secured for raising crops that are green in the summer. The pigs must not be

MARKET REPORT.

NORTH PORTLAND, Oct. 19.—Receipts for the week were 1262 cattle, 53 calves, 3633 hogs, 5880 sheep and 26 horses. There was some little difference of opinion among buyers and sellers as to whether or not the cattle market was as high this week as any time during the fall. There was an undeniable stiffening in prices as compared with the week previous and it was generally conceded that the market was full strong and in some particulars higher than last week. A glance at the sales will show steers at \$7 and cows at \$6.50. The hog market was strong to 15c higher this week. Buyers stated that the advance in price was due to the extreme quality of the offering. There has not been a great deal of quality to the hogs that have been offered this fall. Growers have not taken the trouble to finish their hogs, rushing them into market in only a fairly fat condition. This has had a tendency to reflect on the prices. The sheep market was fully strong throughout.

NOTICE TO CREDITORS.

In the County Court of the State of Oregon for Crook County.

In the matter of the Estate of Anna T. Aune, deceased.

The undersigned having been appointed Executor of the Last Will and Testament of Anna T. Aune, deceased, notice is hereby given to the creditors of said Estate and all persons having claims against said deceased to present them duly verified as required by law, within six months from the date of this Notice, to the undersigned at the office of C. S. Benson, Lawyer, Bend, Oregon. Dated this 9th day of October, 1912.

ANTON A. AUNE,
Executor of the Last Will and Testament of Anna T. Aune, deceased.

SUMMONS.

In the Circuit Court of the State of Oregon, for the County of Crook.

The Bend Company, a corporation, Plaintiff, vs. G. C. Cooper and N. A. Cooper, co-partners, doing business under the firm name and style of The Terrebonne Lumber Co., Defendants.

To G. C. Cooper and N. A. Cooper, above named Defendants:

In the name of the State of Oregon you are hereby required to appear and answer the complaint filed against you in the above entitled suit within six weeks from the date of the first publication of this summons, and if you fail to appear and answer for want thereof the Plaintiff will apply to the Court for the relief prayed for in the Complaint, to-wit: for judgment against you and each of you for the sum of \$719.20 with interest thereon at the rate of 10 per

cent per annum from April 17, 1912, until paid, and for the costs and disbursements of this action.

This summons is served upon you by publication by authority of an order of the Honorable H. C. Ellis, Judge of the County Court of the State of Oregon for the County of Crook. Said order is dated the 24th day of September, 1912, and is duly recorded and entered in said Court and action.

Date of first publication September 25, 1912.

VERNON A. FORBES,
Attorney for Plaintiff.

NOTICE TO CREDITORS.

In the County Court of the State of Oregon for Crook County.

In the matter of the Estate of Arnt Aune, deceased.

The undersigned having been appointed Executor of the Last Will and Testament of Arnt Aune, deceased, notice is hereby given to the creditors of said Estate and all persons having claims against said deceased to present them duly verified as required by law, within six months from the date of this Notice, to the undersigned at the office of C. S. Benson, Lawyer, Bend, Oregon. Dated this 9th day of October, 1912.

ANTON A. AUNE,
Executor of the Last Will and Testament of Arnt Aune, deceased.

SUMMONS.

In the Circuit Court of the State of Oregon, for the County of Crook.

Central Oregon Irrigation Company, a corporation, Plaintiff, vs. Frank Stevens and S. L. Dew and Desert Land Board of Oregon, Defendants.

To Frank Stevens and S. L. Dew, Defendants:

In the name of the State of Oregon: You are hereby required to appear and answer the complaint filed against you in the above entitled suit within six weeks from the date of the first publication of this summons and if you fail to appear and answer, for want thereof, the plaintiff will apply to the Court for the relief prayed for in complaint, to-wit: For the cancellation and setting aside of a certain contract, dated October 21, 1904, made between you and the Deschutes Irrigation and Power Company and assigned to said plaintiff, relating to the settlement of certain lands, and the purchase of water rights appurtenant thereto, situate in Crook County, Oregon, and for such other and further relief as may seem to the Court just and equitable.

This summons is served upon you by publication by authority of an order of the Hon. W. L. Bradshaw, Judge of the Circuit Court of the State of Oregon, for the County of Crook, and said order is dated the

12th day of September, 1912, and is duly recorded and entered in said Court and suit.

Date of first publication, September 18th, 1912.

JESSE BTEARNS,
Attorney for the Plaintiff

NOTICE OF CONTEST.

Department of the Interior, United States Land Office, Lakeview, Oregon, September 24, 1912.

To John S. Thornton of present address unknown, Contestee:

You are hereby notified that Floyd W. Reasoner, who gives e-of C. S. Benson, Bend, Oregon, as his post-office address, did on August 29, 1912, file in this office his duly corroborated application to contest and secure the cancellation of your homestead, entry No. —, Serial No. 04032, made November 10, 1910, for SW ¼, Section 34, Township 21 S, Range 20 E, Willamette Meridian, and as grounds for his contest he alleges that you have never established or maintained residence upon said tract nor have you ever cultivated or improved said tract to any extent whatever but have wholly abandoned said tract for more than one year last past.

You are, therefore, further notified that the said allegations will be taken by this office as having been confessed by you, and your said entry will be canceled thereunder without your further right to be heard therein, either before this office or on appeal, if you fail to file in this office within twenty days after the FOURTH publication of this notice, as shown below, your answer, under oath, specifically meeting and responding to these allegations of contest, or if you fail within that time to file in this office due proof that you have served a copy of your answer on the said contestant either in person or by registered mail. If this service is made by the delivery of a copy of your answer to the contestant in person, proof of such service must be either the said contestant's written acknowledgment of his receipt of the copy, showing the date of its receipt, or the affidavit of the person by whom the delivery was made stating when and where the copy was delivered; if made by registered mail, proof of such service must consist of the affidavit of the person by whom the copy was mailed stating when and the post office to which it was mailed, and this affidavit must be accompanied by the postmaster's receipt for the letter.

You should state in your answer the name of the post office to which you desire future notices to be sent to you.

A. W. ORTON,
Register.

Date of first publication October 2nd, 1912.

Date of second publication October 9th, 1912.

Date of third publication October 16th, 1912.

Date of fourth publication October 23rd, 1912.

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