

# *Land Drainage for Conservation*



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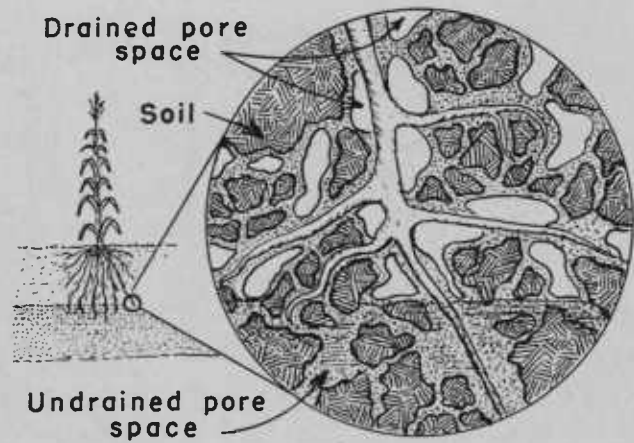
**Federal Cooperative Extension Service**

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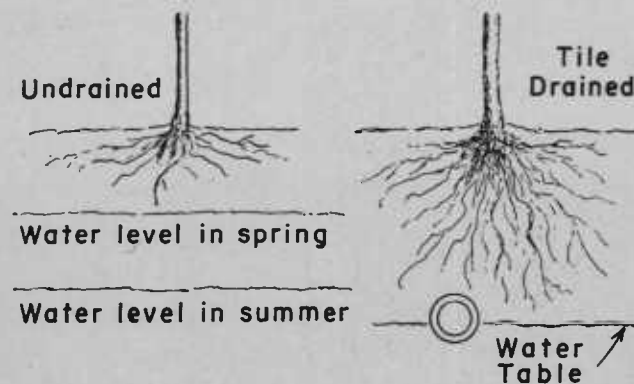
Cooperative Extension work in Agriculture and Home Economics, F. E. Price, director. Oregon State College and the United States Department of Agriculture cooperating. Printed and distributed in furtherance of Acts of Congress of May 8 and June 30, 1914.

# Land drainage is a conservation practice

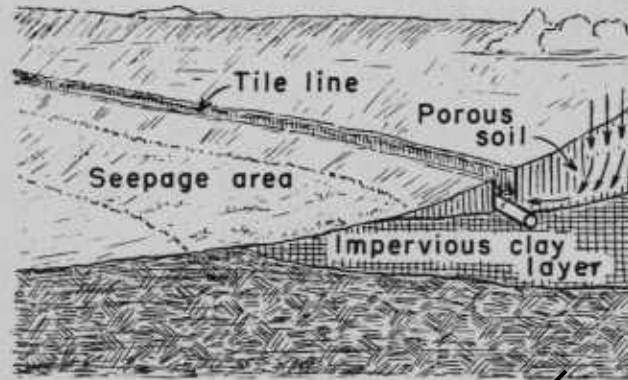
It will aid in controlling soil erosion. By removing excess water, pore space in the soil will be available for absorbing water added by rainfall. This will help eliminate runoff.



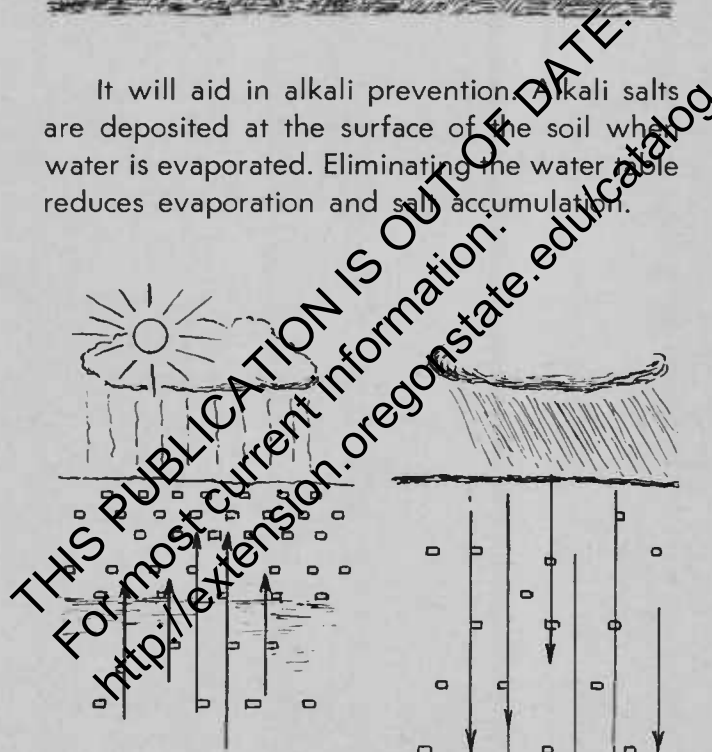
It will increase useable soil moisture. By increasing the volume of the soil in which the roots are growing, total moisture available to the plant will be increased.



It will reclaim seep areas.



It will aid in alkali prevention. Alkali salts are deposited at the surface of the soil when water is evaporated. Eliminating the water table reduces evaporation and salt accumulation.



SALTS BEING CONCENTRATED NEAR SURFACE BY EVAPORATION

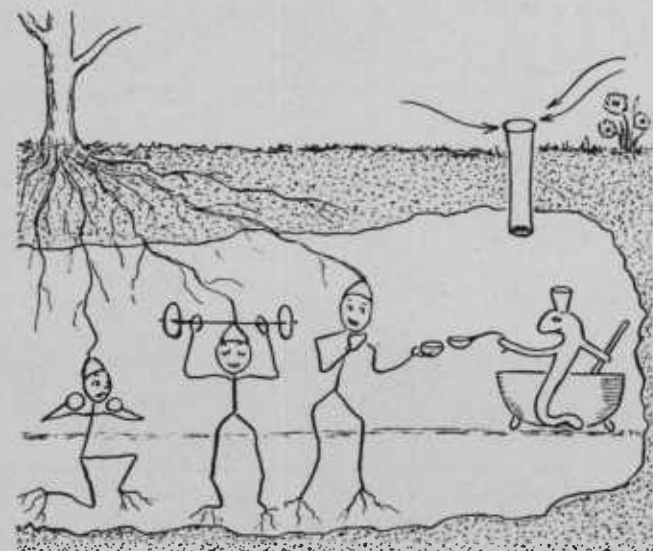
SOLUBLE SALTS BEING REMOVED BY DRAINAGE WATER

It will reduce tillage costs. Eliminating wet spots which must be farmed apart from the rest of the field will reduce tillage costs.

It will result in warm soil earlier. Activity in the soil by roots and microorganisms is closely tied to soil temperature. The earlier the soil warms, the earlier the plants start growing.



It will increase aeration and bacterial activity. Air is vital to microorganisms which change chemical compounds into forms that growing crops can use. Water removed by drainage is replaced by air.



It will lengthen the effective growing season. Early removal of gravitational water will allow tillage operations to start 2 to 4 weeks earlier in the spring.

It will allow greater diversification of crops grown. Roots of most crops will not grow into soil that is full of water. Drainage will especially help deep-rooted crops such as alfalfa, cane fruits, and orchards.

## *Drainage pays!*

- Farmers who have done some drainage are its greatest boosters.
- Drainage alone will double crop production in many cases.
- Poorly drained land often is an expensive item in the farm program. If it is left idle, taxes on it must be paid by the high producing land.
- Nearly a million acres of land in Oregon is still in need of drainage improvements.
- See your local County Extension Agent for further information on drainage problems.