

Illinois Grazing Manual Fact Sheet

GENERAL

Plant Succession



What

Progressive plant development, or the replacement of one plant community by another, is an ongoing and generally long-term process referred to as plant succession.

Why

Although the potential plants on an area of pasture are relatively stable, plants change when environmental factors change. If the annual average temperature of a region changes only a few degrees, the plants respond with changes in composition. If the plant cover of the land is removed and soil erodes, the potential plant community also changes. When the potential plant community of an area of pasture is destroyed, nature strives to restore the vegetation to its original state.

Grassland management today is based on sound ecological principles. Continuous overgrazing of pasture changes the potential plant community from desirable, highly productive grasses to low quality, poor producing grasses, and often permits invasions of moisture robbing woody plants. The change to less desirable plants is called plant retrogression.

How

In order to reverse retrogression and restore pasture productive potential, long-range planning is necessary. First, determine what caused the problem. To address the problem without addressing the cause is a short-term solution that may have a negative long-term impact. Next, inventory the present plant community.

Careful consideration must be given to comparing the present pasture plants in relation to the potential plants that would grow on the soil. A plan for hay and pasture improvement must be carefully considered, and alternatives weighed in order to economically achieve the desired effects.

To promote grassland potential through plant succession, a well-designed grazing system must be incorporated. Various systems are explained in another fact sheet, "Rotation Grazing Systems." Basically, managing animals to graze plants at the proper time and to the right intensity will stimulate plant growth, especially the desirable grasses. Managed grazing, coupled with proper resting of plants, will increase the vigor of the more desirable plants, and allow them to better compete with less desirable plants for sunlight, moisture, and nutrients. Positive plant succession will then begin. The plants that are best adapted and most competitive will begin to dominate the site again.

Where to Get Help

For more information about hay and pasture management, contact your local office of the USDA Natural Resources Conservation Service, listed in the telephone directory under "U.S. Government," or the University of Illinois Extension.



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