Texas Cooperative EXTENSION
The Texas A&M University System

Examining Rangeland Health with Photo Point Monitoring

Joe Tumlinson 2002

Mike Mallett, County Extension Agent-Agriculture

Lampasas County

Summary:

Photo points provide a way for land managers to examine rangeland health with a minimum of time and expense. This demonstration will be evaluated for five years.

Objective:

Photo point monitoring is used to evaluate changes in rangeland condition or health.

Materials and Methods:

Two sites were selected in November 2000 and marked permanently with a steel fence post. Photos were taken at that time from five various angles. The following year photos were again taken from the same angles.

Two types of photographs were taken, vertical (close-up) and scene (from a distance). Photographs taken from a close-up vertical position were used to show detail of soil, litter, and vegetation. Scene photographs show larger areas, depicting general landscape, brush, grass, terrain, and soil.

Equipment needed:

- Steel fence posts
- Hammer or post driver
- PVC tubing (to make square for close-up shots)
- Camera (35mm preferred) or digital
- Film (100 ASA preferred) or appropriate media (disc, etc)
- Pen/pencil
- Felt-tip marking pen
- Yellow pad
- Three-ring binder

Results and Discussion:

The most prevalent abuse on rangeland is destruction of desirable perennial natural vegetation by overgrazing livestock. Properly grazed acreages

- are more stable and reduce erosion;
- produce diverse forage;
- provide nutritious forage for livestock and wildlife; and
- are more esthetically pleasing. 1/

Aldo Leopold, a crusader for land ethics, stated "We abuse land because we regard it as a commodity belonging to us." 1/

By comparing notes and photographs on the same location over time, land managers can see what changes have occurred. Photographs, notes, and interpretations serve as a permanent record of each situation for future consideration. The manager's observations and other information are necessary to determine the causes of change in resource conditions.

There are two types of photo point monitoring situations:

- Annual photos for long-term monitoring of range condition and health over years; and
- Seasonal photos for monitoring short-term management impacts such as stocking rates, changes in forage standing crop, or responses to weed and brush control practices.

Photographs that best illustrate range condition and health should be taken at least once a year and at the same time each year. A good time for annual photographs is in the fall before the first killing frost.

To monitor grazing, do not choose photo points close to water or in the back of the pasture. Select areas that represent the range site in general.

When preparing photographs for a specific photo point over time, look for:

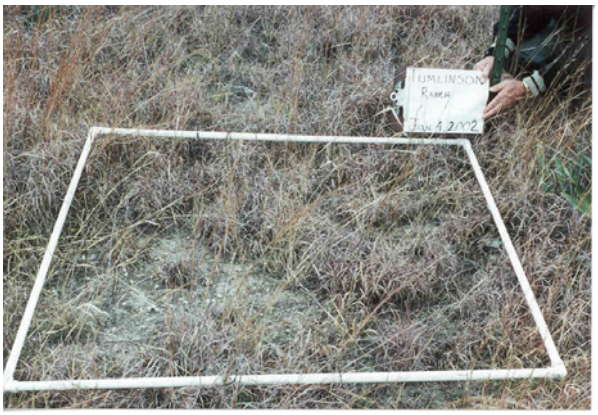
- Changes in the cover or density of desirable or undesirable plants and amount of litter on the ground;
- Changes in the amount of bare ground visible; and
- Evidence of erosion, such as loss of soil between plants.

Records such as those detailing grazing use, brush management, and rainfall are valuable in interpreting these photographs.

Photographs taken in 2000, 2001, and 2002 were taken in two different pastures on the Tumlinson Ranch. Livestock grazing was deferred from July 2000 until June 2002. The pastures were treated in 2001 with herbicide for weed control. During these two years drought conditions were experienced.

Following are photographs of one site from the three-year study. Observed from these photo

points was an increase in forage produced.



2001 2001

2002 2002

Acknowledgments:

Appreciation is expressed to Mr. Joe Tumlinson for providing the land resource for this demonstration.

1/ From Land Management Tips for Small Ranches in Texas. Texas Section - Society for Range Management