divisions (A_i) is found by

$$A_i = \frac{pi(r_m^2 - r_o^2)}{10}$$

The radius of the individual concentric circles is found by taking

$$10\,(r_i^2 - r_{i-1}^2) = r_m^2 - r_o^2$$

or more simply

$$r_i = \frac{\sqrt{r_m^2 - r_o^2}}{10} + r_{i-1}^2$$

The radii were determined in this example by starting with $r_{i-1} = 20$ feet. The derived r_i then became the r_{i-1} for the next larger radius determination.

Each of these concentric circles was then divided into ten equal area parts by straight lines passing through the center of the circles at 36° intervals, thus delineating 100 sub-units of equal area. The intersections of the circumferences of the concentric circles with the radial lines designates a sampling point. Each sampling point then represented one point of an infinite number of points in each of 100 equal areas. Each of the 100 sampling points had an equal chance of being selected as a sample unit location.

The sample points were determined by selection of two numbers from a random numbers table. The first random number determined the direction from the cluster marker stake and the second number determined the distance from the same stake. A sample unit was located in the field by setting a compass on a tripod over the cluster marker stake and first locating the specified direction with the compass; and secondly, the specified distance from the marker stake was determined by the use of a steel tape.

Directions and distances to locate study unit points within a distance from 20 to 120 feet from the marker stake are shown in the following table. A lightweight chain 20 feet long connects the marker post and the zero end of the measuring tape. The sampling points closest to the center marker post are 42.4 feet from the marker post and the farthest sampling points are 120 feet away.

Random number	Direction from marker (degrees)	Distance from marker (ft. on tape)
0	0	22.4
1	36	36.6
2	72	47.8
3	108	57.5
4	144	66.1
5	180	73.8
6	216	81.0
7	252	87.7
8	288	94.0
9	324	100.0

This system allows for random location of study units and provides for rapid relocation of permanent plots, permanent line transects, and permanently tagged individual plants for range studies with only one marker post.

OCULAR POINT FRAME

An ocular point frame has been used satisfactorily in sampling bitterbrush *(Purshia tridentata)* and sagebrush *(Artemisia tridentata)* communities in central Oregon. This frame was developed by Dr. W. W. Chilcote and students for use by Oregon State College ecology classes. It consists of two sets of cross hairs forming a square with 25 points at approximately three-inch spacing. The two sets are attached to the frame with the points vertically aligned. The frame is supported at convenient heights with metal legs.

This unit was found to be particularly well adapted for securing an objective measure of cover in sparse vegetation. On the ranges studied, temporary 100-foot square plots served as sampling units for obtaining plant composition data. Twenty-five points were recorded at each setting of the frame. Sufficient mechanically spaced settings were taken to total 1000 observations per plot. All vegetation up to a height of approximately four feet can be measured.

FIGURE 1. Ocular point frame.

The legs are easily removed from the frame, making it a compact, lightweight unit, yet one sufficiently rugged for field use.

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CALL FOR PAPERS FOR 1961 ANNUAL MEETING

Members wishing to present papers at the Society's next annual meeting, the 1961 "Homecoming" convention in Salt Lake City, are urged to submit titles and short abstracts to the Program Committee now. Final date for titles and abstracts of volunteer papers to reach the committee is July 15, 1960. W. O. Shepherd, Program Committee Chairman, Intermountain Forest and Range Expt. Station, Forest Service, Ogden, Utah.