File: pex12.xls

Pex12.xls refers to production data from plots in USFS Study FSRM 1706-12 that were not formally included in that study. The file contains net aboveground production data for perennial and annual grasses.

Production was measured each autumn from 1954-1956 and 1967-1971. Measurements were taken along 5 to 20 randomly located permanent line transects in each of four or five pastures. Twenty transects were measured in pasture 1 in 1954-1956 and 1969-1970, 10 in 1967-1968, and 5 in 1971. Ten transects were measured in pasture 7 in 1954-1956 and 1967-1968, 20 in 1969-1970, and 5 in 1971. Sixteen transects were measured in pasture 8 in 1954-1956, 10 in 1967-1968, 20 in 1969-1970; and 5 in 1971. Ten transects were measured in pasture 9 in 1967-1968, 20 in 1969-1970, and 5 in 1971. Ten transects were measured in pasture 10 in 1954-1956 and 1967-1968, 20 in 1969-1970, and 5 in 1971.

The pastures had been grazed yearlong by cow-calf herds since 1915; utilization ranged from 47-60%. Two changes in grazing management were instituted at the start of the study period: 1) The utilization objective was lowered to 40%, and 2) Summer deferment (July-Sept) in alternate years began in 1958 in two pastures and in 1959 in the other two. Pasture 9 continued to be grazed yearlong and was measured in 1963-1966 for comparative purposes. Data from pasture 9 were not included in the published analyses.

Mesquites (Prosopis velutina) in pastures 1 and 7 were killed with diesel oil between 1954 and 1957. Mesquites in pastures 8, 9, and 10 were left untreated.

Herbage production was estimated to the nearest gram each autumn using double-sampling. Field weights were estimated on five permanent 9.6x1 ft. plots and on one temporary plot per transect. Herbage on temporary plots was clipped and weighed to calculate a factor for adjusting ocular estimates. Dry weights of clipped herbage provided a moisture correction factor. These factors were recorded on herbage tabulation sheets. Field weights from the permanent plots were converted to grams per 96 sq. ft. plot. Grams per 96 sq. ft. plot were converted to the nearest 0.1 air-dry pound per acre by applying the factors.

In this file air-dry pounds per acre amounts are truncated at the decimal point except for amounts of 0.1-0.9, which are recorded as one pound per acre. Totals calculated from file values will generally be lower than ones calculated from field data due to truncation.

Taxa were recorded separately to the species level in most cases and sometimes to the genus level only. The OTHERPG code refers to unidentified perennial grass species; ANNGRASS to all annual grass species.

Sources of data were original field data sheets with the following exceptions:

1) Air-dry pounds per acre had not been calculated for 1954-1956 so grams per 96 sq. ft. plot were calculated from the plot values on the field data sheets. The factors were applied to grams per 96 sq. ft. plot to obtain air-dry pounds per acre.

2) Air-dry pounds per acre had not been calculated for pastures 7, 8, 9, and 10 in 1968 or in pastures 8, 9, and 10 in 1969, so these amounts were calculated by applying the factors to grams per 96 sq. ft. plot on field data sheets. To maintain consistency, amounts for pasture 1 in 1968-69 were recalculated using tabulation sheet factors.

A value of -9999 in a field means that no data were available because a reading was not made for that date.

pex12notes.txt

26 October 2001