scatter diagram of individual sampling points, was drawn for each of the 5 species (Figure 1).

Correlation coefficients between LN values and oven-dry shoot weights ranged from 0.87 to 0.97 for the 5 grass species. These indicated that 75 to 94% of the variation in yield was accounted for by variation in LN values depending upon the species. Regression coefficients for the 5 species were 3.8 to 4.2. All regressions were shown to be linear.

Comparison of LN values with yields of the 5 grasses in the experiment indicates (1) high correlation between the 2 sets of values; (2) similar regression coefficients for grasses of different species; and (3) relatively low variability in converting from LN values to yields.

Some variability was encountered in larger plants probably resulting from a combination of 2 factors: (1) the difficulty of accurately counting large numbers of leaves (up to 88 on a single plant in this experiment) and (2) the partial death of leaf tissue when the plants got older or were subjected to environmental stress. In some cases the longest or measured leaf began to die at the tip; then the heretofore next longest leaf was measured. The bias resulting from the dying of leaves of larger plants was greater because the length differences were multiplied by greater leaf numbers.

Despite these difficulties, the LN method of sampling shows promise in greenhouse studies in determining values correlated with yield at any time in the growth period. Probably the most useful application of this method is in deriving growth curves which are similar to yield curves, rather than directly converting LN values to yields.

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IDENTIFYING GREENBRIER GROWTH

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In a study in the Arkansas Ozarks, appearance of persistent leaf bases was found to be the best of several criteria for distinguishing the current season's growth of saw greenbrier *(Smilax bona-nox* L.). Greenbriers are among the most important deer browse plants in southern forests, but production and utilization are difficult to measure because old and new growth often look very much alike.

The leaf bases (Figure 1), which are ⅛- to ½-inch long, occur at the nodes and partially enclose a bud or stem. On old growth all bases look bleached and papery white. On current growth most are brown or light green and appear more succulent. The undersides of the bases remain brown longer than the upper portions and thus permit identification of new growth even in the late fall and winter.

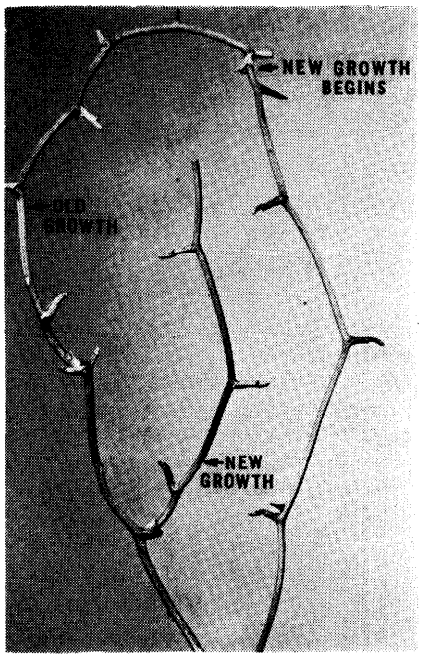

FIGURE 1. On saw greenbrier, old growth is indicated by bleached leaf bases. On new growth the bases are light brown or green.

At all seasons, determinations should be made from several bases along the stem rather than from one or two. Some plants—particularly those that have been browsed—have bleached bases near the stem tip while those closer to the axil are brown.

Leaf blades appear only on new growth, but because they often fall or are eaten soon after formation, their presence or absence was not a consistent indicator. Stem color and terminal bud scales were not reliable distinguishing characteristics in the Ozarks.

RESEEDING COMMITTEE MEETING

The Range Reseeding Equipment Committee will meet for 2 days, January 29 and 30, 1961, in the Newhouse Hotel, Salt Lake City, headquarters for the Society's annual convention.