THE EFFECT OF THE TIME OF CUTTING AND OF WINTER PROTECTION ON THE REDUCTION OF STANDS IN KANSAS COMMON, GRIMM, AND TURKESTAN ALFALFAS

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The time of cutting alfalfa has been given consideration intermittently for the past 30 years. While the earlier experiments were conducted primarily to obtain information on the quality of hay, the observations made in connection therewith clearly indicated a correlation between the time of cutting and the maintenance of stand. The observations of Cotrell (3) and Bennett (2) seemed to show that early and frequent cuttings stimulated growth, thereby producing more and higher quality hay. Later experiments reported by Williams and Kyle (14) indicated that alfalfa may be injured by cutting too early or by delaying cutting too long.

Numerous experiments have been conducted to study the effect of the time and frequency of cutting alfalfa. Moore and Graber (9), Salmon, et al., (13), and Kiesselbach and Anderson (7) are among those who have reported on this subject and in all cases it was observed that too frequent or too late cuttings injured the stands of alfalfa. Not until the later reports were made was much attention given to the effect of the various cutting treatments on the plant itself.

Two methods of approach to the problem of maintaining stands of alfalfa are evident, first, that of varietal resistance to disease and winterkilling, and second, that of maintaining the vitality of the plant, thereby helping it to overcome such adverse conditions as killing by low temperatures or by partial freezing and the subsequent bacterial invasion as mentioned by Janssen (5) and by Jones and Weimer (6). Salmon (12) pointed out that some varieties are more resistant than others to bacterial wilt, and Peltier and Tysdal (10, 11) brought out the resistance of varieties to both cold and wilt.

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3Numbers in parenthesis refer to "Literature Cited," p. 188.