THE ESTABLISHMENT OF LOW HOP CLOVER,
TRIFOLIUM PROCUMBENS, AS AFFECTED
BY TIME OF SEEDING AND GROWTH OF
ASSOCIATED GRASS

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THE low hop clover (Trifolium procumbens) and the least hop clover (T. dubium) are winter annuals widely distributed throughout the southeastern states, although neither species is indigenous to this country. The least hop clover and to a less degree the low hop clover also occurs in many sections of the Pacific Northwest.

In the northern part of the southeastern states the low hop clover predominates, but in the southern part the least hop clover is more abundant. In between there is a wide transition zone where there is an intermingling of both species. When the low hop clover is introduced into the southern part of the United States, it is slightly more productive than the least hop clover, although on most soils it may not become the dominant species unless minerals are supplied.

Both species are valuable in pastures supplying early spring pasturage and increasing the fertility of the soil for the companion grass. If permitted to bloom, hop clovers produce an abundance of seed since they are self-fertile and self-pollinating and are tolerant of variable environments.

In many places the occurrence of either of the species is sporadic, being abundant in certain years and scarce in others. Since the seeds of these species germinate in the fall, the hazards in establishment are great as the very small seed must be near or on the soil surface when germinating. While it appears that hop clover is best adapted to a grass habitat, observations suggest that the competitive effect of the associated plants during the time of establishment of the young clover seedlings may be one of the factors determining their irregular occurrence. As a part of a life history study this experiment was designed to determine the effect of the height of growth of the associated grass and of the date of seeding on the stand establishment of hop clover and whether stands can be established in cultivated soil.

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