

STOP: 10

Kentucky Bluegrass-Clover Mixtures for Low Management Turfgrass Areas.

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One alternative to the use of relatively high rates of N on turfs is to include clover in the turf. Clovers have the capability to allow Rhizobia organisms to live on their root systems; in return the organisms fix N gas into a form the plant can use. The advantage would be that lower N fertilization would be needed to maintain a good density of turf with an acceptable green color. Most Kentucky bluegrass turfs will not compete favorably with broadleaf weeds at very low N rates, but the combination of clover and the N provided by the clover to the Kentucky bluegrass may be more competitive. Among the disadvantages of this type of turf are 1) the potential for broadleaf weed encroachment since weed control chemicals cannot be used without injury to the clover, 2) the wear tolerance of clovers is not very high, 3) the clover flowers and seedheads may be considered distracting, and 4) bees are attracted to the flowers.

Among the clovers that might be considered in a mixture with Kentucky bluegrass are Dutch white, ladino, and Alsike. The Dutch white is the smallest and would probably best blend with Kentucky bluegrass as a turf.

Alsike clover was seeded with a mixture of equal parts of Galaxy, Adelphi, Nugget, and Baron Kentucky bluegrasses in August, 1975. Treatments shown in Table were initiated in 1976. In October, 1976, counts were taken to determine the composition of the turfs as a result of treatments. To date there has been limited encroachment of other weeds into the turf. These plots receive no traffic other than mowing. Higher N rates have resulted in lower clover as would be expected. At the higher N rates, the 1 inch mowing height appears to encourage clover compared to the 2 inch mowing height.

Normally, clover in a Kentucky bluegrass turf tends to cause patchiness, but when the clover is seeded in the turf, the clover density should be more uniform. As these studies continue the potential for clover-Kentucky bluegrass mixtures and the best management practices for these mixtures will be evaluated.

Table . Effect of nitrogen treatment and mowing height on the composition of a mixed Alsike clover-Kentucky bluegrass turf.

	Annual N treatment		Mowing height inches	Clover %
	lbs/100 sq. ft.	Time of application		
0		---	2	65
1		Apr, June, Aug	2	65
2		Apr, June, Aug	2	54
4		Apr, June, Aug	2	42
6		Apr, June, Aug	2	49
8		Apr, June, Aug	2	49
12		Apr, June, Aug	2	36
2		Apr	2	56
2		June	2	57
2		Aug	2	48
0		---	1	69
1		Apr, June, Aug	1	59
2		Apr, June, Aug	1	59
4		Apr, June, Aug	1	56