Influence of Cultural Practices on Weed Encroachment

Poor turf culture is a major reason for weedy lawns. Any effort to control weeds in turf should start with improving cultural practices. One goal of cultural weed control is to maximize turf density and maintain healthy, disease-free turf for a major part of every year. Some of the most important cultural practices are discussed below.

Mowing Mowing practices have a larger impact on weed invasion in turf than any other cultural practice. Infrequent mowing, where turf is severely scalped, causes root dieback and forces re-growth from axillary buds, which consumes stored carbohydrates and results in thin turf that is slow to recover and less dense. In hot weather, turf may die in irregular patches after severe scalping. Reduced turf density allows weed invasion due to lack of competition. Once weeds invade, they often spread rapidly, since many (rosette types) are relatively unaffected by the infrequent scalping.

Regular mowing (i.e., about weekly) allows turf to achieve maximum density throughout the year. Under these conditions, turf will compete favorably with many common weed species, including common dandelion, *Taraxacum officinale.*

Proper mowing height is critical to maintaining turf density. In general, mowing below optimum height increases invasion of weedy grasses such as annual bluegrass (*Poa annua).* Some desirable grasses, such as Kentucky bluegrass *(Poa pratensis)* and red fescue (*Festuca rubra)* may not do well if continually mowed low. Acceptable mowing heights for commonly used turfgrasses are below.

2010Mowing Height Ranges for Northwest Turfgrasses

Grass	Optimum Height Range (inches)
Colonial bentgrass	0.5 to 1
Chewings fescue	1 to 2.5
Red fescue	2.5
Hard fescue	1 to 2.5
Tall fescue	1.5 to 3*
Perennial ryegrass	1 to 2.5
Kentucky bluegrass	1.5 to 2.5
*Assumes improved varieties.	

Irrigation This ranks with mowing in terms of its impact on weed encroachment. Excess irrigation is a primary reason annual bluegrass invades many lawns. Surface wetness aids seed germination and also shifts the competitive edge toward existing annual bluegrass plants. Proper irrigation means

thoroughly wetting the root zone, then allowing soil to dry until desirable grasses begin to wilt. Thus, turf density remains high, and surface conditions do not aid weed seed germination.

Lack of irrigation (e.g., prolonged summer drought) causes turf to go dormant and survive via crowns, rhizomes, and stolons; turf density decreases, which allows weeds to compete freely once fall rains come or irrigation begins. Once weeds are established, they often thrive under this drought cycle because many are exceptionally deep rooted. Lawns allowed to go dormant every summer require more intensive efforts to control weeds chemically than lawns that are irrigated enough to ensure optimum turf density.