

REJUVENATION, OVERSEEDING OR RE-ESTABLISHMENT - WHAT'S BEST?

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Rejuvenation of turfgrass sites has become a common practice with the advent of improved turfgrass cultivars and improved rejuvenation methods. The reasons which necessitate rejuvenation of turfgrass sites are many. Severe disease damage which results in thinning of the turf may warrant overseeding or re-establishment. Likewise, severe insect infestations can cause thinning of the affected turf area. Turfgrass sites which have extreme weed species density can be treated effectively for the weeds present but the result will be an area of sparse turf which may be quickly re-infested with more weeds. Other common reasons for rejuvenation include: 1) chemical contamination of the soil, 2) extreme soil compaction, 3) soil modification or aesthetic contour changes, 4) presence of undesirable grass species, 5) thinning due to environmental stress or 6) vandalism.

Any turf which does not fulfill the aesthetic desires of a homeowner can be considered a candidate for rejuvenation. Prior to rejuvenation of a turf, the cause of the turf's poor or declining quality must be ascertained. Determining the reasons for poor performance of a turf should be the initial step in planning a rejuvenation program.

The three basic methods of turf rejuvenation are 1) improved management, 2) overseeding and 3) re-establishment. The proper selection of a rejuvenation method should be determined by the extent of the problem and the desired final result.

Improved management whether improving soil fertility, controlling pests, irrigation or initiating cultivation practices, will often be sufficient steps to rejuvenate a poor quality turf. It is in those circumstances where severe problems have occurred that the more intensive overseeding or re-establishment operations are required to rejuvenate the turf.

Overseeding

In cases where turf has been thinned by disease, insects or removal of weeds, overseeding can accomplish the desired effect of reattaining the density of the turf. Overseeding is the practice of seeding an area of pre-existing turf and is accomplished by one of several methods. Irregardless of the methods used, the practice of overseeding, especially when site specific turfgrass cultivars are used, will improve turf quality when soil-related problems are not a factor.

The easiest and most dependable method of overseeding is utilizing a commercial overseeding machine. Overseeders perform two operations necessary for successful turf rejuvenation. The first, cultivation of parallel strips in the turf, is accomplished with the use of rotating vertical blades which remove thatch and loosen the surface (1/8 to 1/4") of the soil. The second operation, placement of the seed, is accomplished by a metering seedhopper which is connected to concave seed disks which channel the seed into the cultivated strips and insure seed-soil contact which is necessary for optimum germination. The best results are usually seen when overseeding is done in two or more alternating directions, as this will insure uniformity of the resulting turf. When using an overseeder, the seeding rate should be reduced to at least one-half the recommended rate of broadcast seeding. While the use

of a commercial overseeder is the preferred method of overseeding, the scarcity of these specialized units and the cost of an overseeder may not make their use the most practical method for everyone. There are many alternate methods of overseeding, ranging from broadcasting seed by hand and hoping for the best, (definitely not a recommended practice) to site preparation with commercial 'de-thatching' equipment and subsequent broadcast seeding. Vertical blade 'de-thatchers' which can be rented or purchased at a much lower cost than an overseeder, can prepare an excellent seedbed and remove the thatch which will interfere with seed placement. The thatch which is removed in this method of overseeding should be raked from the area prior to seeding at recommended seeding rates. The overseeded area should receive a final dragging or shallow dethatching to insure the seed's placement in the soil.

Re-establishment

When soil problems are present such as chemical contamination, compaction or when contour changes are desired for proper drainage or landscape purposes, total re-establishment of the area will be necessary.

In those instances where turf has been damaged by excessive chemicals or salt, the surface soil may need removal. After correction of the problem, re-establishment may be accomplished by conventional seeding or with the use of an overseeder. Using an overseeder on newly prepared soil will give excellent germination results but will require a greater length of time to establish the area between the overseeding 'slits'. The choice of an overseeder or conventional seeding practices should be determined by the time desired to attain a fully mature turf. The same decision of 'maturity rate' must be made when an area is re-established after correction of soil compaction problems or when changes are made in the existing soil contours.

So, 'What's Best'? Should one always overseed or re-establish an area because of persistent weed problems? If the weeds are not controlled by proper turf fertilization and herbicide applications when necessary, overseeding or total re-establishment will only yield a short-term solution to the problem. As a general rule-of-thumb, if the turf problem is not associated with soil problems then the turf can be rejuvenated by improved management in conjunction with overseeding. If the turf problem is soil-related and cannot be remedied with the existing turf in place, then re-establishment is the only proper method of rejuvenation. No matter which method is used, it will only yield a lasting solution when proper turf management is used after rejuvenation.