

ROUGH RENOVATION
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Renovating a large area of turf on a golf course may be necessary for a variety of reasons. For instance, conversion of a rough area to a more desirable grass may be warranted to improve playability, management and aesthetics. Also, turf loss resulting from damaging insects or disease may call for large scale rough renovation. Whatever the reason, re-grassing large areas of rough can be done inexpensively and with minimal disruption of play.

In the early 80's the fairways at Bloomfield Hills Country Club were reduced from 50 to 25 acres to accommodate the new practice of lightweight mowing. What resulted from the reduction was a *Poa annua*-bentgrass rough next to the fairways. These areas became unsightly, hard to manage, and many times left golfers with difficult shots. To eliminate this problem a renovation program was developed. Following is an explanation of the procedures used to re-grass 25 acres of rough.

Different methods to convert the rough were studied but due to various reasons not used. They were:

1. Slice and seed into existing rough - There would be too much competition from the Bent-Poa for the bluegrass to develop. Also, any ryegrass that did germinate would develop into unsightly clumps.
2. Strip and Sod - Too costly to sod 25 acres of rough.
3. Scalp and Seed - Total kill of existing grass not complete.

The procedure decided was the total kill of the unwanted grass and seeding the target area with a mixture of bluegrass and ryegrass. This program involves the use of a non-selective herbicide (RoundUp) to kill the existing vegetation.

Round Up was applied at a 1% solution rate using a Malincrodt Spray Hawk connected to a 300 gallon spray tank. This spray unit allowed us the versatility to spray in small, tight areas and still spray an acre of turf in less than 30 minutes. A few recommendations to consider:

1. Seal all leaks on the spray unit to avoid any turf loss to non-target areas.
2. Spray in the early morning when wind velocities are low to prevent drifting.
3. Have a well trained spray technician apply the material to avoid excessive turf loss in non-target areas.

After applying the Round Up, rope off the area to prevent tracking the herbicide to non-target areas. It is extremely important to irrigate the treated area 24 hours after spraying to wash off the residue left on the leaf blades. This will deactivate the herbicide and prevent turf loss to non-target areas. Three days after spraying, scalp the turf as close as possible to the soil in preparation for seeding.

A mix of 70% bluegrass and 30% ryegrass (by weight) of the best seed varieties available was selected for the re-grassing process. The seed was applied with an Olathe Thatcher/Seeder unit at a rate of 150#/acre.

During the initial attempt of seeding the tubes releasing the seed from the box clogged from debris thrown by the thatching unit. I decided to remove the seeder and use only the thatcher to prepare a seed bed. A 3 foot drop seeder was used to apply the seed, thereby assuring a proper seed distribution. I suggest bending every other tooth on the thatching blades. This will make a wider groove in the soil and provide a better seed bed. If desired, aerify before thatching to provide more holes for the seed. I saw little, if any difference in the germination rate from the aerification. However, certain soil types may require additional seed bed preparation.

After seeding, drag the area with a mat to work the seed into the grooves left by the thatcher. Leave the debris created during the seeding on the ground for 8-10 days to provide a mulch for the seed.

Fertilized and irrigate immediately after seeding. Keep the rough moist until the seedlings can survive without daily irrigation. Two weeks after seeding, cut the grass at 1/2 inch to allow the slower germinating bluegrass to compete with the ryegrass. Cut every 7 days for the next 4 weeks. Golfers can continue to play the fairways and rough during this period without hindering the growth of the new rough.

After one year of growth, I would estimate the population of the rough to be 90% ryegrass and 10% bluegrass. A small amount of *Poa annua* did return. Use selective control products to eliminate the remaining *Poa annua*.

The optimum time to seed in lower Michigan is August 15 to September 10. The nights are cooler and the length of daylight is best for seed germination and growth. If possible, plan your renovation within this time frame.

The cost per acre was \$625. This includes materials and labor. The rough is attractive and there is a pronounced definition of fairway and rough. Also, the rough is easier to maintain and there has been a vast improvement in playing conditions. The members are completely satisfied with the results.