

## A PROCEDURE TO ENHANCE EARLY SPRING GREEN-UP

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Editor's Note: This article is one you might want to read again next spring. It was written by Orrin Ellis, a golf course superintendent in Woburn, Massachusetts. New England experiences winter conditions similar to those here in Wisconsin.

This piece is reprinted with permission from Kip Tyler, editor of *The Newsletter of the Golf Course Superintendents Association of New England*. Kip is the course superintendent at the Salem Country Club in Peabody, Massachusetts. It appeared in the February 1992 issue of *The Newsletter*.

As superintendent of New England golf, I have often puzzled over the perfect time to remove winter green covers. After some experimentation, I have discovered a procedure which greatly enhances early spring green-up after green covers are removed. Once covers are removed (approximately the third week in March), cold night temperatures can set greens back to the color they would have been without covers. Many superintendents will remove covers during the day and replace them in the afternoon to prevent damage from the cold. The application of activated charcoal, combined with a sticker, can take away the worries of cold damage. This will not only prevent greens from setting back, but will stimulate turf color and will enhance root development. Leaf growth is apparently not stimulated, so all of the growth at this point appears to be in the root system. The charcoal application alone will slide off the grass blades after the first dew, rain, or irrigation; therefore, a sticker is necessary to achieve any results.

Another effect of this application is the reduction of leaf spot disease in the spring. Pesticide control for leaf spot has never been required on areas where the charcoal was used.

An added bonus to this procedure is that bentgrass responds better to the activated charcoal than *Poa annua*. If the greens were seeded the previous fall, the new grasses will be quite evident after only a few days.

On the negative side, mixing of charcoal is difficult, and so is the clean up of the mixed product. As soon as spraying

is completed, immediately rinse the system. The interior will clean out easily if the product does not have the opportunity to dry. Due to the sticker residue left on the outside of the sprayer, a steam cleaner will come in handy to clean it.

The procedure is as follows: After removing the cover from the greens, double cut at 1/4" (if greens are extremely high, then bring them down slowly or topdress to protect crowns from scalping). Blow off any loose materials from the greens such as leaves or grass clippings. Spray greens with a combination of activated charcoal and sticker. Spray the green or greens at approximately 2 lbs/M in one direction. After this coating dries, spray again in the direction perpendicular to the first application. This second coating will allow covering of more leaf area, and give a total coverage of 4 lbs/M.

The application rate is not critical, for I have found that 2 lbs. to 4 lbs/M works well, with the best results gained by using 4 lbs. Greens located in wetter areas will respond better than those in drier areas. For a few hours after the application, you will notice a black appearance to the turf. Within a few hours (possibly the next day depending on sunlight intensity), the black will be replaced with a deeper green than would normally be seen in March or April.

The first year that this application was used, the greens were so impressive that a second application was used three weeks later. The turf had an excellent response, so in May a third application was used. This time the amount of light the charcoal attracted was too much, and wilting occurred. My recommendation is that only one application of charcoal (or two if spring temperatures are lower than normal) be used.

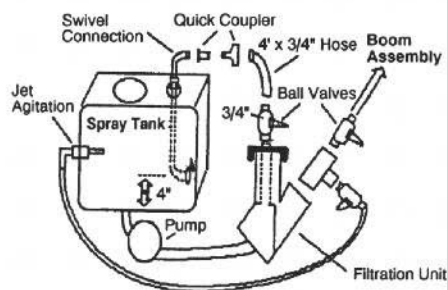
### Equipment and materials used:

1. 50 lbs. activated charcoal (Grow Safe)/100 gallons of water.
2. One pint Exhalt 800 spreader sticker/100 gallons water.
3. Cushman Truckster

4. Smithco 110 gallon tank, centrifugal PTO pump, Tee Jet 8008VH nozzles at 30 PSI without screens.

5. Main filter modified (see illustration) to allow full pump flow to mix 50 lbs. charcoal with 100 gallons of water.

(This modified filter cleans itself while spraying and always keeps the solution in suspension.) **KEEP VALVE OPEN WHILE SPRAYING.**



### Additional mixing information with modified filter

Fill system 3/4 full and run pump to cycle water through system. Open the 50 lb. bag of activated charcoal by using a knife to cut along the top of the bag. Place bag vertically over tank opening and press bag vertically over tank opening and press bag firmly to seal the dust from escaping. Tap bag slowly until all contents are released. Let bag stay in place until all dust is mixed. Once the charcoal is in suspension, add the rest of the water, rinse off any spilled charcoal, then add sticker and apply. This tank would cover 32 M at the 2 lb. rate, or 16 M at the 4 lb. rate.

When cleaning equipment, there is no need to remove screen from filter. When emptying system, use of ball valve and quick disconnect connection between hose and tank, are used to quickly empty tank and screen off any particle too large to pass through screen. This bypass system is used for all my spraying and does make mixing and cleaning easier. Please remember, if you try this modification, you must **RE-CALIBRATE** your system, because the pressure will be reduced to the boom from the increase of flow through filter into tank.