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## Fred Grau's Turf Questions & Answers

### Fairways Get Attention

Fairway improvement has been receiving an increasing share of attention in the last two or three years. When putting greens are mediocre to poor, little time or money is allocated to fairways. The gradual upgrading of greens and tees has resulted in drawing attention to the rather sad condition of fairway turf.

Why do fairways deteriorate? There are a number of reasons. They vary with the type of grass, geographical location, soil type, water supply, diseases, insects, management, fertilization or lack of it, and height of cut. Renovation of fairways has been discussed at a number of conferences. In a few cases the real causes of poor turf have been described. Then, and then only, the mechanics of renovation make sense, especially when they are related to correcting the weaknesses which brought about the unsatisfactory condition.

### Causes of Deterioration

Bluegrass fairway turf (unwatered) can be eminently satisfactory but often it becomes thin and weedy. The first thought, generally, is "kill the weeds!" The weeds are there because the turf was not dense enough to keep them out. If grubs are responsible, an appropriate insecticide first must be used to terminate the activities of the insects. Another cause may be leafspot, which seriously thins turf and allows weeds to encroach. By the time the weeds appear, it is too late to apply a corrective fungicide treatment for the disease. If this is the case, two approaches are suggested: (1) introduce a leafspot-resistant type of bluegrass and (2) fertilize more generously in late summer or early fall to encourage a dense turf.

Natural rainfall varies and thus the quality of unwatered bluegrass will vary. When water is applied to bluegrass turf the result often is weeds, poa annua and disappointment. Why is this so? So far as it can be determined, the applied water stimulates growth continuously through periods when bluegrass usually is dormant or semi-dormant. This exhausts the reserve



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of food in the roots and rhizomes, weakening the plant and allowing water-stimulated weeds to encroach. The water, if improperly used, will increase poa annua. When the poa content reaches a certain point, the supt is caught in a vicious cycle. To reduce water would mean a loss of turf (mostly poa). This generally will not be tolerated. Soon comes the time when a hot humid period reduces the poa to zero and the supt. is forced to do something. Perhaps too often the next step is bent!

### Can Be Irrigated

Common bluegrass, Merion or others can be irrigated successfully if water is applied as needed. The most important single factor in growing good bluegrass turf is adequate nutrition. So often the weeds get the attention instead of the nutrition that is needed so badly.

Many studies have been conducted which spell out the relation between height of cut and depth and volume of roots. There is no question but that more roots thrive at higher cuts. Sometimes the fact of "playability" is lost sight of. Fairway turf is produced for pleasurable play. This means dense, firm turf for a good lie. Too high a cut destroys the playing quality. Too short a cut injures the grass. Somewhere in between there is a necessary compromise.

The value of soil cultivation has been amply proved and demonstrated. Without cultivation soils become compact. Compaction seriously limits the ability of water and plant food to penetrate to the root zone. Rainfall becomes much less effective.

### Balanced Feeding

When bluegrass fairways become thin there is a tendency for the next step to be "reseeding." When better judgment prevails and the thin turf is fertilized according to need, the need for seed virtually vanishes. Recently a course was inspected that had very poor fairways. Reseeding was proposed. Soil samples were taken and analyzed at an agricultural college. Fertilizer was applied to meet the needs of the soil and the turf. When phosphorus was in excess none was applied. A year later the turf had filled in so well that the reseeding project was scrapped and the money was put into the balanced feeding program.

Certainly the indiscriminate use of complete fertilizers on bluegrass turf can be cited as an undesirable practice. Scientific balanced feeding, based on bona fide soil tests, has shown striking results.