

## STEPS IN BUILDING A HEALTHY TURF

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One of the best ways to minimize turf maintenance costs is by establishing a good quality turfgrass in the first place. A healthy vigorous stand of turf resists the invasion of weeds and other problems. Obviously, there are many factors that go into building a healthy turf, including fertilization, aerification, mowing, irrigation, etc. However, I would like to limit this discussion to three of what I consider the most important factors in building a healthy turf: species selection, selection of an adapted variety, and choice of quality seed.

### Species Selection

Like most commodities, turfgrasses come in various shapes and sizes, suited to numerous conditions. Grass that perform well under high maintenance conditions, for example, sometimes do poorly under low maintenance. The reverse is also true. Proper species selection depends on suiting the right turf species to the environment of the lawn. If the turf will have a large amount of natural shade, a fine fescue is probably the best choice. Fine fescues, including creeping red fescue, can tolerate as much as 80 to 90% shade and still provide an adequate stand of grass. Rough bluegrass has the unique adaptation to heavy shade with high levels of soil moisture. Rough bluegrass sees little use outside of wet, shady locations.

Low maintenance conditions call for the use of specific turfgrass species not frequently employed under higher maintenance regimens. Canada bluegrass or redtop provide a good choice for low maintenance turf sites. Reubens Canada bluegrass and Streaker redtop are presently the only widely distributed varieties of these species.

High wear locations, such as that of a athletic field, call for the use of wear tolerant species such as tall fescue or zoysiagrass. These two grasses, because of their "bristly" nature, resists wear and tear better than most of our turfgrass species.

### Variety Selection:

For most of Michigan, Kentucky bluegrass is still the species of choice. It provides the ideal turf under high, moderate, or fairly low maintenance levels. Varieties such as Adelphi, Fylking, Eclipse, Ram I, Glade, Nassau, Mystic, and Cheri have been around for many years and represent tried-and-true standards of Kentucky bluegrass. Newer varieties such as Amazon, Dawn, Destiny, Liberty, Chateau, P-104, Lofts 1757, Freedom, and Huntsville are newer varieties,

with many advantages. With the Kentucky bluegrasses in particular, it is very important to select an adapted variety or varieties for your location. Kentucky bluegrasses are commonly blended to provide a range of adaptation over a number of different environmental conditions.

### Quality Seed:

Quality seed is always worth the extra cost. When you consider that the life span of a typical turf stand may be 10 or 20 years or more, the choice of quality seed cannot be overlooked. In most cases, the cost of the seed is one of the smallest factors in establishment of a turf (considering other factors such as soil modification, grading, drainage, irrigation, fertilization, and labor). Specify certified seed whenever possible. Certification gives you a written guarantee of varietal purity in the bag. Buying uncertified or "variety not stated" seed (VNS) is a tremendous risk. In actuality, the seed may have originated from someone's back pasture. Golf course superintendents are keenly aware of this problem, because of the bogus Penncross fiasco in 1985.

Many factors go into the production of quality seed, including selection, breeding, production, conditioning, and marketing of the seed. As an example, many of the newer tall fescue varieties are composed of only 5 or 6 clone parental lines. Arid tall fescue, the leading variety in the national test trials, by comparison, is comprised of 88 parental clones. What this means to the turf manager is that a variety such as Arid would have a much wider base of adaptation than a narrowly selected variety with only 5 or 6 clones. It is important to know from whom you are buying your seed. A reputable dealer selling certified blue tag seed will always be your best bet. "Brown bag" seed is never worth the savings.

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## Typical Choices in Building a Healthy Turf

### Species selection

Heavy shade	Creeping red fescue
Damp shade	Rough bluegrass
High wear	Tall fescue
	Zoysiagrass
Low maintenance	Canada bluegrass
	Redtop
Rapid cover	Perennial ryegrass
General purpose turf	Kentucky bluegrass

### Variety selection (Kentucky bluegrass)

Shade	Glade
	Chateau
	Ram-I
	Julia
Low maintenance	S-21
	Ram-I
	Wabash
High maintenance	Glade
	Midnight
	America
Disease resistance	Eclipse
	Freedom

### Choice of quality seed

Selection & breeding	Wide adaptation
	Multiple parent lines
	Yields seed
	Disease resistance
Production	Varietal purity
	Free of weeds/offtypes
	Ample supply
Conditioning	High purity
Marketing	Honesty & reputation
	Believable advertizing