PRAIRIE NURSERY "NO MOW" LAWN MIX FACTSHEET Prepared by Neil Diboll

Prairie Nursery's "No Mow" Lawn Mix is a specially designed blend of six slow-growing fine fescue grasses. These are cool season grasses and are recommended for planting in northern climates of the United States and Canada (above approximately 37 degrees North Latitude). "No Mow" is also adapted to the coastal areas of the Pacific Northwest, the cooler mountain climates in the east-central states, and in the western mountains from the mid-elevation aspen woodlands to just below timberline.

The balanced blend of fine fescue grasses in the "No Mow" Lawn Mix takes combines each variety's individual characteristics to create a turf that will:

- Grow to form a dense sod
- Thrive in full sun to partial shade
- Require little if any fertilization
- Need minimal watering (only during extended dry periods)
- Resist most turf grasses diseases
- Biologically reduce weed growth
- Reduce lawn maintenance dramatically
- Serve as an ecological alternative to traditional high maintenance lawns

"No Mow" thrives in full sun to partial shade on any reasonably well-drained soil, and is particularly well suited to growing on dry, sandy or rocky soils with low Nitrogen levels. Nitrogen fertilizer stimulates leafy growth, which only increases the need for mowing. The application of excessive nitrogen fertilizer can actually damage fine fescue grasses, so minimal or no fertilization is recommended.

Some of the fine fescue grasses in the No Mow Lawn Mix have been documented to possess allelopathic properties, in which the grasses produce compounds that prevent or retard the growth other plants and weeds. This "natural herbicide" makes No Mow particularly resistant to invasion by other herbaceous plants that often plague other types of turf.

"No Mow" is one of the most shade tolerant turf blends available, and thrives in light to moderate shade. It does particularly well under individual trees that receive indirect light from the sides, and is an excellent choice for around surface-rooted trees that leave little available soil for turf, such as maples. It also thrives in woodlands composed of oak, hickory, elm, ash, birch, white pine, and other "open canopy" tree species that allow filtered light to reach the ground level. "No Mow" will even grow under spruce trees that receive light around their edges, provided that the surface layer of needles and duff are removed to expose the mineral soil prior to seeding. When planted under deciduous trees the leaves must be raked off or thoroughly chopped up with a mulching mower after autumn leaf fall to prevent smothering of the turf grasses over winter. "No Mow" will not grow well under black walnut trees, or in the dense shade of sugar maple and conifer forests. "No Mow" is not recommended for damp soils, or heavy clay soils with less than four inches of rich loamy topsoil.

Grass Varieties in "No Mow" Lawn Mix

"No Mow" is a blend of "bunch forming" fescues and "creeping" fescues that are derived from species that are native to the Northern hemisphere. The bunch grasses are exceptionally drought resistant, thrive in low nitrogen soils, and have moderate tolerance to heavy foot traffic. The creeping fescues spread gradually by underground rhizomes to help fill in between the bunch grasses to create a weed-resistant sod. The creeping fescues also help to fill in areas that may experience turf damage.

Hard Fescue (*Festuca brevipila*) Two different varieties of Hard Fescue are generally used in the "No Mow" blend. These "bunch" grasses are among the most heat and drought tolerant of the fine fescues. They grow slowly, thus reducing or eliminating the need for regular mowing. The Hard Fescues are the most tolerant of heavy foot traffic of the fine fescues. They do not tolerate close mowing (less than 3 inches).

Sheep Fescue (*Festuca ovina*) Another "bunch" grass, Sheep Fescue is extremely drought tolerant and can subsist on a diet of almost no Nitrogen. It is moderately wear tolerant, but will not perform well if closely mowed (less than 3 inches). Both Sheep Fescue and the Hard Fescues are slow growing and require little or no fertilization, making them ideal for low maintenance lawns.

Chewings Fescue (*Festuca rubra subs. fallax*) This bunch grass is among the deepest green of the fine fescues and makes a very high quality turf. It is the most competitive of the fine fescues, helping to crowd out weeds. Chewings Fescue thrives in acid soils, such as those found under conifers and oaks. Although more tolerant of close mowing than the other fine fescues, it does not stand up well to heavy traffic, and is prone to developing a thatch layer.

Red Fescue (*Festuca rubra*) This is one of the two creeping type fescues in the "No Mow" Lawn Mix. Similar in appearance and growth from to the "bunching" fine fescues (above), the "creepers" are also drought resistant and require little nitrogen. These "creepers" help to bind the bunch grasses together to forming a dense sod. Creeping fescues do not form a thick thatch layer. However, they are not tolerant to heavy traffic and do not respond well to close mowing. Red fescue is one of the most shade tolerant turf grasses. It also possesses a high salt tolerance that rivals Alkaligrass (*Puccinellia distans, var. Fults*), a turfgrass that is commonly planted in areas subject to high salt levels.

Creeping Red Fescue (*Festuca rubra var. rubra*) Similar to Red Fescue, Creeping Red Fescue is the second creeping variety in the No Mow mix, and helps fill in damaged areas of turf. Creeping Red Fescue is the most tolerant of the fescues in the "No Mow" lawn mix, and can be cut at a height of two inches, as compared to four inches for most of the other fescue varieties. However, this is only once component of the "No Mow" lawn mix, so your fescue lawn should never be mowed lower than three to four inches.

The combination of these six complementary varieties of fine fescues makes the "No Mow" Lawn Mix a versatile and adaptable blend that is an excellent choice for a wide variety of planting situations and applications.

	DROUGHT	NITROGEN	SHADE	COLD	MOWING	TRAFFIC	THATCH
TURF TYPE	TOLERANCE	REQUIREMENT	TOLERANCE	TOLERANCE	FREQUENCY	TOLERANCE	FORMATION
NO MOW FESCUE MIX	Excellent	Low	Very Good	Very Good	Low	Fair	Medium
KENTUCKY BLUEGRASS	Good	Medium	Fair to Good	Very Good	Low to Medium	Good	Medium to High
TURF TYPE PERENNIAL RYE	Very Good	Medium to High	Fair to Good	Fair to Good	High	Excellent	None
IMPROVED TALL FESCUE	Excellent	Medium	Good	Good	Medium	Very Good	Low to None

COMPARISON OF COMMON COOL SEASON TURF TYPES

Recommended "No Mow" Seeding Rates

For Lawns:

5 pounds per 1000 square feet 220 pounds per acre

For Low Maintenance Fields, Orchards, etc:

2¹/₂ pounds per 1000 square feet 110 pounds per acre

Areas that are intended to be low maintenance fields rather than lawns can be seeded at one half the normal lawn seeding rate. The "No Mow" turf will take longer to develop at this lower seeding rate, but will typically fill in to form a sod within one full year.

Rainfall Requirements

"No Mow" does best in climates that receive annual precipitation of 25 inches or more, with at least half arriving during the growing season. In drier climates with less than 25 inches of rain, supplemental irrigation can be supplied during dry periods in summer. "No Mow" is more drought tolerant than Kentucky Bluegrass, making it an excellent alternative for cool, arid climates.

Soil pH Range (Acidity – Alkalinity)

The fine fescues in the No Mow Lawn Mix grow well in soils within a pH range of between 5.0 and 8.0. The optimum pH range for these grasses is between 5.5 and 6.5, but will thrive in a wide range of soil acidity and alkalinity.

When should "No Mow" with Annual Rye be used?

"No Mow" with Annual Rye is intended for use only in areas that are subject to erosion and require rapid soil stabilization. The annual rye germinates within a few days after the first rainfall or watering event, and grows rapidly to help hold the soil in place. On steep slopes, an erosion blanket should be applied over the seeded area and anchored with stakes to prevent soil erosion and loss of seed during rain storms. The standard "No Mow" formulation without annual rye should be used on level areas that are not subject to erosion.

Site Preparation

Prior to seeding "No Mow,' all the existing vegetation must be completely eliminated. If renovating or converting an existing lawn, the grasses and weeds on the site must be killed or removed before planting. This can be accomplished by a variety of methods:

- Spraying with a glyphosate herbicide (such as "Roundup")
- Smothering with black plastic, newspapers, cardboard, old cardboard, etc
- Repeated cultivation over a multi-month period (not recommended for erodible sites)
- Removing the turf with a sod cutter (this method will not kill tap-rooted weeds)

Areas such as abandoned fields that occupied by perennial weeds will require one to two years of site preparation in order to completely kill the existing weeds and reduce the weed seeds that are harbored in the soil. The most effective method to accomplish this is repeated applications of glyphosate herbicide every six to eight weeks during the growing season (three to four time per year). This will eventually kill the existing vegetation, as well as many of the weed seeds in the soil after they germinate.

An alternative to herbicides is smothering the soil or repeatedly tilling the soil for one to two years. However these two methods do not reduce the weed seed populations in the soil. Cutting the sod and removing it is not recommended for abandoned fields, since this does not remove deep-rooted or rhizomatous perennial weeds. They will likely re-sprout and re-infest the newly seeded "No Mow" planting.

For more information on site preparation and other planting information, please refer to our publication entitled "No Mow" Seeding Instructions.

Seeding Dates

The optimal window for seeding "No Mow" is between August 20 and September 30. Cool season grasses germinate well during the cooler weather of late summer and early fall, while most weeds germinate in spring and early summer. By the following spring the fescue grasses are in control, and leave little room for the germination of weed seeds in the soil. Cool season lawns that are seeded in fall experiences markedly less weed competition than spring seedings, mature faster, and should form a sod by the end of the following spring.

"No Mow" can also be seeded in early to mid-spring, between March 15 and May 15, but these seedings will experience greater weed competition and usually require more watering as the temperatures rise going into summer. Development of the turf is slower than with fall seedings due to increased competition from weeds and slower growth during the heat of summer.

Seeding Methods

"No Mow" can be seeded by various equipment, including:

- Hand seeding (for small areas only)
- Push-type grass and fertilizer spreader
- Over the shoulder hand-cranked whirlybird type seeder
- Turf slit-seeder
- Tractor mounted broadcast seeder, such as a "Brillion" seeder
- Tractor mounted slit seeder
- Hydro-seeder

When seeding by hand, with a push type spreader, or whirlybird seeder, the seed should be raked into the soil lightly and then rolled with a roller to ensure firm seed to soil contact. Covering with clean, weed-free straw (such as winter wheat, oat, or rye straw) will help retain soil moisture and improve germination. Erodible slopes should be covered with a light straw or excelsior erosion blanket and staked into the ground to hold it in place.

Watering

Newly seeded "No Mow" plantings that have been mulched with straw or protected with an erosion blanket should be watered every two to three days for two weeks to encourage germination. Plantings that are not covered with straw mulch or an erosion blanket should be watered every one to two days (or whenever the soil dries out). Fescue grasses generally germinate in ten days under good growing conditions, and new plantings usually "green up" in about two weeks as the new seedlings become visible. Once the seedlings are evident, watering can reduced to twice a week, unless the weather is hot and dry and necessitates more frequent watering. Once the new grass seedlings are one half inch to one inch tall, watering can be discontinued, except under hot dry conditions.

An established "No Mow" lawn requires no additional watering, except during extended dry periods in summer. Occasional, deep watering once a week or so provides moisture to the lower roots, and is far superior to frequent, shallow watering. Water <u>before</u> the grass begins to turn brown. Once it turns brown it has entered dormancy, and all the water in the world will not green it up. Non-irrigated "No Mow" lawns that turn brown during summer drought will typically green up when cool, moist weather returns in late summer and early fall.

No Till Seeding Tip for Fall Plantings

"No Mow" can be seeded in the fall without tilling the soil, provided that the seedbed is smooth and level. The "No Mow" seed can be spread using hand equipment or mechanical seeder directly into dead sod in the fall that has been completely killed using glyphosate herbicides. The seeded area must be kept watered regularly, usually every morning for about 15 to 20 minutes. Regular watering is required to maintain soil moisture at the soil surface where the seed is germinating.

The area should green up in about two weeks as the fescue seedlings begin to appear, at which point watering can be reduced to once every three days (provided cool fall weather prevails and the soil does not dry out rapidly). This simple method typically yields an excellent stand of "No Mow" turf with a minimum of work. It is particularly well suited to seeding on slopes where soil

tillage can lead to erosion. If seeding into a thick, dead sod on a slope, there is no need to apply an erosion blanket, since the roots of the dead plants will hold the soil in place while the new "No Mow" seedlings develop and stabilize the soil.

Fertilization

Fertilization is generally not needed to support growth of a healthy "No Mow" turf, except in extreme cases where soil nutrition is notably lacking. Phosphorous (P) and Potassium (K) may be in short supply in certain soils, and can be added using slow release fertilizers that contain little or no Nitrogen. On extremely poor soils, such as sand dunes and gravel pits, the addition of a balanced, slow-release fertilizer that contain equal parts Nitrogen (N), Phosphorous (P) and Potassium (K) is recommended to assist during establishment. If further follow-up fertilizer applications are necessary, they should be done in early spring just as new grass growth is beginning, or in early September as fall growth is initiated. Nitrogen fertilizer should not be applied in summer, as cool season grasses typically enter a dormant period and do not take up nutrients efficiently. Application of excessive nitrogen at any time of year can actually damage fine fescue turf, and is strongly discouraged.

Mowing

"No Mow" lawns may require occasional mowing during the first two years of establishment to control weeds, especially with lawns that are seeded in spring. Most annual weeds can be controlled by mowing at a height of four inches in the first growing season. If biennial weeds such as sweet clover, Queen Anne's Lace, burdock, etc. are a problem in the second year, they should be mowed at four inches just as they begin to flower, usually around mid June. This carefully timed mowing will kill most biennials. A few may survive the mowing, and should be mowed at four inches a second time when they re-bloom later in the season.

Once the "No Mow" lawn is established, there are four basic mowing options:

- No mowing at all
- One late spring mowing, usually in early June when the seedheads appear
- Fall mowing with a mulching mower, especially in wooded areas to chop up fallen leaves
- Regular mowing, usually monthly, to maintain a more "cropped" appearance

<u>No Mowing:</u> This will result in a turf whose leaves grow to about six inches in height that will drape over one another to create a low-growing meadow effect. Seedheads about two feet tall will appear in early to mid June, creating a nice meadow effect. The seedstalks will typically fall to the ground by late summer, and the lawn will revert to its normal height of about five to six inches.

<u>Late Spring Mowing</u>: Many people mow their "No Mow" lawn once a year in June when the seedheads appear. Mowing at four to five inches in height removes the seedheads and the turf will re-grow to its typical six inch height.

<u>Fall Mowing:</u> This is a good option for seedings under trees or in open woodlands. The fescue grasses usually will not form seedheads when grown in the shade, so June mowing is not required to maintain a six inch height. However, leaves from deciduous trees must either be

raked up and removed, or chopped up with a mulching mower in order to prevent smothering of the turf over winter.

<u>Regular Mowing</u>: For those who prefer a more manicured, traditional lawn look, regular mowing can be done every three to four weeks, or when the grass reaches a height of five to six inches. Most fine fescues do not tolerate close mowing, and should be mowed no lower than 3.5 inches. Never remove more than one third of the total leaf material when mowing, or the turf will be damaged. Always cut grass with a sharp mower blade to minimize tearing of the leaves, which causes additional stress to the grass plants.

De-Thatching

Fine fescues tend to develop a thatch layer near the soil surface over time. Thatch is composed of dead grass that does not completely decompose. It can smother the growth of new grass shoots, reducing the density of the lawn and creating "dead" spots. The thatch layer also tends to retain moisture at the ground level, which can encourage the growth of fungal diseases. Thatch development is encouraged by high levels of soil Nitrogen, and is more common in rich soils and lawns that are regularly fertilized. If thatch builds up to the point where dead grass is visible and the grass begins to thin out, the lawn should be de-thatched.

De-thatching can be accomplished using a mechanical de-thatcher or power rake, or by hand using a de-thatching rake. Set mechanical de-thatchers to a depth where they lift the thatch without digging up the soil. If the thatch is particularly thick, the de-thatcher will need to be set deeper, and some soil disturbance will likely occur. The thatch should be raked out of the lawn and removed (it makes excellent mulch for gardens, flower beds, etc). If open soil is visible following de-thatching, the affected areas should then be over-seeded with "No Mow" lawn mix.

Timing of de-thatching is very important. Cool season fescue lawns should be de-thatched in mid-spring after the grass has greened up and begun active growth. De-thatching in early spring before the lawn begins to grow tends to encourage weeds.

Summary

"No Mow" is an excellent choice for creating low maintenance lawns in northern climates with annual rainfall of 25 inches or more. It is particularly well suited for growing in both sunny and shady locations, on dry soils, and in soils with low nutrient levels. Because it thrives under low levels of Nitrogen, "No Mow" lawns typically require no fertilization, further reducing the rate of growth and mowing requirements. "No Mow" forms a dense sod that naturally reduces weed growth, thus minimizing the need for herbicides. The reduced use of fertilizers, herbicides, and fuel makes "No Mow" one of the most ecologically sound landscape choices available.

For More Information on "No Mow" lawns as well as native plants and seeds, contact:

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