**Successful fescues for use as permanent plantings between rows of blueberry**

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Clean culture is standard practice among New Jersey producers of highbush blueberry. This practice, which utilizes intense tillage and herbicide regimes to maintain a weed-free environment between rows of blueberry, has contributed to a significant decline in soil health. Concerns regarding the implications of soil health decline on blueberry yield have prompted New Jersey growers to seek more sustainable solutions to weed management.

Establishment of perennial fescues between rows of blueberry is an important opportunity for New Jersey growers; adoption will enable growers to address soil health concerns while simultaneously managing weeds with lower inputs. Two classes of perennial fescues are being considered for this application: fine fescues and tall fescues. Each class has unique attributes which make them well suited for the challenging soil conditions typical of blueberry farms across the state (e.g. low soil pH, low soil organic matter, high percentage of sand).

**Fine Fescues**

As a class, fine fescues are valued for their tolerance of infertile, acidic soils prone to drought conditions. Fine fescues perform best in well-drained soils and are adapted to cool, shaded environments typical of row middles in an established blueberry field mid-season. These fescues prefer low maintenance, which aids them in competition with other cool season grasses during times of water or fertility stress. Although fine fescues can provide long-lasting ground cover without fertilization, low applications of nitrogen fertilizer (1-2 pounds of nitrogen per 1000 ft2 per year) may aid in establishment. Due to poor heat and traffic tolerance, fertilizer applications should be made in the fall to limit succulent growth in the summer. Summer dormancy of these grasses allows them to survive without irrigation. Fine fescues should not be mowed to a height below 2 ½ to 3 inches. Seeding rate for fine fescues is 4 to 6 pounds pure seed per 1000 ft2.

Hard Fescue and Sheeps Fescue

Hard fescue and sheeps fescue are difficult to distinguish because of their similar characteristics. Both are bunch-type grasses which spread by tillering and form a dense ground cover at maturity. They have a relatively slow rate of establishment. Under low maintenance, hard fescue has the best performance of any fine fescue. Sheeps fescue has a non-aggressive growth habit but still performs well in the given soil conditions.

Creeping Red Fescue

Creeping red fescue is different from the other fine fescues because is spreads through rhizomes below the soil surface. These fescues generally have the greatest seedling vigor of all the fine fescues.

**Tall Fescue**

Tall fescue is traditionally favored for its deep root systems and ability to control erosion; a valuable attribute in the sandy soils of the blueberry system. Like the fine fescues, tall fescue is a bunch-type grass which is widely adapted to a range of soils and tolerant of shade. Tall fescue has remarkable heat tolerance which is dependent on the establishment of a deep root system. Well-drained soils with moderate fertility and an optimum pH of 6.5 are ideal. Areas with lower fertility may require 1 to 4 pounds of fall-applied nitrogen per 1000 ft2 per year. Tall fescue should not be mowed below 3 inches in height or weed invasion and reduced heat tolerance will be apparent. Tall fescue is more tolerant of traffic than the fine fescues. Seeding rate for tall fescue is 4 to 8 pounds of pure seed per 1000 ft2.

**Seeding Date**

Late summer and early fall are the ideal planting times in order to allow adequate growth before winter. Spring seeding should be avoided to minimize pressure from warm-season weeds during establishment.

In southern New Jersey, seed fescues between August 20 and October 10. In northern New Jersey, seed fescues between August 15 and October 5. The earlier dates are preferred.

**Seedbed Preparation**

Begin by tilling to prepare a fine seedbed. Rake the soil to remove any debris such as rocks or clumps of weeds. Seed fescues on the soil surface and rake in seed to approximately ¼” depth. Incorporation of seed into soil at the proper depth is critical for establishment. Roll seedbed lightly to improve seed-soil contact.

Recently, fescues have been seeded with a John Deere Frontier TR1048 Grass Overseeder and a Truax TR48G. If these implements are used, a roller is still recommended after seeding.

**Cited References**

John Grande. 2004. Rutgers NJAES Cooperative Extension fact sheet FS584, Seeding Your Lawn <https://njaes.rutgers.edu/pubs/fs584/>

James A. Murphy and Eric Watkins. 2002. Rutgers NJAES Cooperative Extension fact sheet FS990, Tall Fescue Varieties for New Jersey <https://njaes.rutgers.edu/pubs/publication.asp?pid=FS990>

James A. Murphy. 1996. Rutgers NJAES Cooperative Extension fact sheet FS688, Fine Fescues: Low-Maintenance Species for Turf <https://njaes.rutgers.edu/pubs/publication.asp?pid=FS688>