### JultureConnection

# perennial solutions



# Panicum virgatum 'Prairie Fire'

'Prairie fire', a perennial red switch grass, is expected to catch on like wildfire. Learn how to propagate, produce and protect this increasingly popular species.

By Paul Pilon

ith the increasing demand for ornamental grasses and the popularity of the annual purple fountain grass pennisetum 'Rubrum', the perennial red switch grass *Panicum virgatum* 'Prairie Fire' is well-positioned to catch on like wildfire. Many



By early sumer, the leaves of 'Prairie Fire' turn wine red, held above blue-green stems. (Photo: Paul Pilon)

perennial enthusiasts believe 'Prairie Fire' is destined to become one of the hottest grasses to reach the market in the next few years. 'Prairie Fire' was hybridized by Gary Trucks of Amber Wave Gardens, Benton Harbor, Mich.

During spring the foliage of 'Prairie Fire' emerges blue green, and by early summer the leaves turn wine red, held above blue-green stems. The red coloration appears much earlier than other red panicum cultivars, which often do not change color until the late summer. In the late summer as flowering approaches, the leaves curl slightly creating the image of red ribbons woven throughout the rosy panicles that rise above the foliage.

*Panicum virgatum* is a popular clump-forming, warm-season, American Indian ornamental grass that tolerates a wide range of growing conditions and performs well across USDA Hardiness Zones 4-9. Being a warmseason grass, they do not begin to flush in the spring until the temperatures are conducive for plant growth; usually they begin growing in late March or April. 'Prairie Fire' forms large upright clumps reaching 4-5 ft. tall and 18-24 inches wide.

Switch grass is highly valued for such ornamental characteristics as its erect upright form, showy inflorescences and the year-round contributions it provides to the landscape, including brilliant fall colors and the winter effects it provides while in the dormant form. Red switch grass is very versatile and is commonly used as accent plants, background plantings, mass plantings or in mixed containers.

#### **Propagation**

Panicum 'Prairie Fire' is vegetatively propagated by division. Division of switch grass is best when done in the late winter or early spring while the plants are still in a dormant state. It entails dividing or splitting the crown into smaller sections containing at least one stem, commonly referred to as a culm or tiller, and several adjoining roots. Plant patent protection has been applied for and self-propagation of 'Prairie Fire' is strictly prohibited.

#### Production

'Panicum Fire' is most commonly produced in 1-gal. or largersized containers using 3-inch or larger-sized plugs obtained from a licensed propagator. Panicum performs well in a wide range of growing mixes. A medium with both adequate drainage and water holding capacity is recommended. While transplanting, try to avoid planting them too high or too low; always plant to match the original soil line of the plug with the growing mix of the final container.

It is important to keep the root zone of newly potted grasses moist, but not wet, until they become established. Once they are fully rooted, they can be allowed to dry out more fully between waterings. Established containers require average to above-average amounts of irrigation and often **b** 

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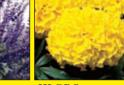
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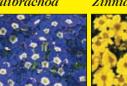
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### CultureConnection

need to be watered daily when actively growing. Panicum can tolerate short periods of dry conditions but perform best when an adequate amount of irrigation is provided.

'Prairie Fire' is considered a moderate to heavy feeder. When

fertilizer applications are applied weekly or on an as-needed basis, it is necessary to use high rates, such as 300- to 400-ppm nitrogen from a balanced water-soluble fertilizer source. When constant liquid feeding, lower rates, such as 100- to 200-ppm nitrogen, are applied with each irrigation. Growers using controlled-release fertilizers incorporate 1¼-1½ lbs. of elemental nitrogen per yard of growing medium prior to planting or top-dress the media surface using the medium or high rate recommended on the fertilizer label.

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While Panicum can tolerate dry conditions, irrigation helps it perform best.

The pH of the growing medium should be maintained within the range of 6-6.5.

For plant establishment, it is recommended to maintain average temperatures of 65-75° F. Panicum performs best when grown under high light intensities with a minimum of 5,000 foot-candles. Plants grown under low light levels tend to become floppy and have lowerquality characteristics.

Several growers have expressed a need to reduce the plant height of ornamental grasses when they are grown in containers. Foliar applications of plant growth regulators are rather ineffective as the chemical has difficulty getting good contact with the stems which are covered by the leaf sheath. Drenching PGRs provides the most height reduction. I recommend beginning with the following rates for each of the effective products: 10-ppm flurprimidol, 10-ppm paclobutrazol and 2-ppm uniconazole. Since there has only been limited research using PGRs on grasses, it is best to conduct small trials before making wholesale applications over the entire crop. Drenches should be applied by the time the plants are 6-12 inches tall. Later applications seem to be less effective and will not provide the desired results.

Switch grass is easy to overwinter when provided minimum amounts of protection. In the late fall after they have gone dormant, trim the plants back to 2-3 inches above the top of the container. Once they are trimmed, group the pots together inside a cold frame, greenhouse or outdoor production bed. In many parts of the country, grouping them together is the only protection necessary, especially if they are located within covered structures. In colder zones, I



recommend covering them with a protective frost blanket during the winter months. Do not allow them to dry out during the winter months. Overly dry conditions during this time usually will result in crop losses.

#### **Pests and Diseases**

Insects, including Japanese beetles, spider mites and thrips, may occasionally be observed feeding on panicum but rarely become problematic. Control strategies may not be necessary unless the scouting activities indicate actions should be taken.

Plant pathogens are not very common when producing panicum. Crown and root rots are the most common diseases observed. The onset of these diseases often is caused by improper planting practices, poor irrigation management, high salt levels in the growing medium, poor physical properties of the media (namely too much water-holding capacity and decreased aeration), or the crop has been grown in the same container and growing mix for too long. Any of these conditions could lead to plant stress and the onset of root rot pathogens. Choose a growing mix that has good water-holding and drainage characteristics and will not deteriorate or settle over time. Monitor the irrigation practices and the fertility levels on a regular basis, making adjustments accordingly. When possible, do not hold panicum in the same container for an extended period of time (12 months or more). When these measures are taken, most crown and root rots can be prevented.

#### **Growing Conditions**

Most producers of ornamental grasses do not market them as flowering plants. In fact, unless they are produced and sold onsite, it is often very expensive to ship tall flowering grasses to retail sites. When maintaining 65-75° F throughout crop production, 1-gal. pots of non-flowering panicum can be produced from large plugs in 7-9 weeks.

Switch grass has an obligate cold requirement for flowering. Growers wishing to produce flowering 'Prairie Fire' should provide a minimum of 12 weeks of temperatures less than 40° F. They are obligate long-day plants and will not flower while they are grown under short days. In fact, panicum will not grow and often goes dormant under short day conditions. There has been relatively little research conducted to determine the exact forcing time for flowering panicum cultivars. I recommend producing them at 68-72° F for at least 14 weeks. Panicum 'Prairie Fire' is available exclusively from Walters Gardens, Inc. (www.waltersgardens.com). GPN

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