Polygonatum odoratum
‘Variegatum’

This variegated Solomon’s Seal is a must have for shade and woodland gardens.

There are numerous perennials that have great attributes and landscape performance but are not easily marketed alongside many of the mainstream perennials in the marketplace today. The Perennial Plant Association’s 2013 Perennial Plant of the Year, Polygonatum odoratum ‘Variegatum’, is one of these remarkable perennials that doesn’t necessarily fit into today’s commercial production systems, but offers great performance and resilience in the landscape.

With its graceful arching stems, polygonatum ‘Variegatum’ adds an exotic, architectural touch to shady landscapes. It develops pink new shoots, pink to burgundy colored stems, and alternate lance-shaped green leaves edged with a creamy ivory coloration. Creamy white bell-shaped flowers appear in the late spring and dangle beneath the variegated leaves. The sweet perfume-like fragrance is somewhat between the scent of lilies and hyacinths and is strongest on warm, calm evenings.

Polygonatum forms gradually expanding patches of attractive 2-foot-tall upright to arching stems. They are a little slow to establish in the landscape, but the clumps are generally long-lived and easy to maintain. Variegated Solomon’s Seal is cold hardy and is commonly grown throughout USDA Hardiness Zones 3 to 9. It grows best is in shady locations with moist soil environments. Polygonatum makes a beautiful addition to shady woodland gardens and an excellent companion to landscapes containing ferns, hostas, and other shade perennials. With its eclectic, variegated foliage, ‘Variegatum’ makes a great contribution to flower arrangements.

Propagation
Although seed can be collected and sown, they require special treatments, such as stratification, and germination rates can be sporadic. Additionally, plant growth following germination is slow and is not economical for perennial propagators. Therefore, polygonatum ‘Variegatum’ is almost exclusively propagated using bareroot divisions. With domestic bareroot production being limited, the majority of the starting materials growers use is imported.

Production
Polygonatum is best produced in intermediate container sizes; most growers grow them in 2-quart to 1-gallon sized containers. The fleshy white tubers should be planted at approximately half an inch below the surface of the growing mix with...
the stems pointing upward. When planting from large cell sizes (3-inch or larger), the liners should be planted so the original soil line of the plug is even with the surface of the growing medium of the new container. Solomon’s Seal performs best when grown in a mix with both good water-holding ability and good drainage. Many bark-based growing mixes provide these characteristics and maintain appropriate physical properties over time.

There are some instances when growers plant polygonatum in the winter from bare root and the shoots fail to develop. In many instances, the rhizomes are intact and appear to be free of plant pathogens. When this occurs, subjecting them to a cold treatment will allow them to break dormancy and begin to actively grow. If the temperatures are not cold enough outside, or if you do not have access to a cooler, then keep the plants and overwinter them during the upcoming winter. As long as the rhizomes are hard, they will survive and emerge following a cold period.

They are light to moderate feeders. Nutrients can be delivered using water-soluble or controlled-release fertilizers. Growers using water-soluble fertilizers apply 75- to 100-ppm nitrogen with every irrigation or use 150 to 250 ppm as needed. Controlled-release fertilizers are commonly applied as a top-dress onto the media surface using the medium recommended rate on the fertilizer label or incorporated into the growing medium prior to planting at a rate equivalent to 1.0 to 1.25 pounds of elemental nitrogen per yard of growing medium.

Since they emerge and develop slowly, it is not necessary to provide much nutrition until the plants are actively growing. There is usually enough food reserves in the bare root starting materials to sustain the initial growth — feeding is generally not necessary during the first few weeks of production. Maintain the media throughout the production cycle with a pH between 5.8 and 6.5.

Polygonatum prefer to be grown consistently moist, but not overly wet. When irrigation is necessary, water them thoroughly then allow the soil to dry slightly between irrigations. Avoid overwatering them. It is not necessary to use plant growth regulators to reduce stem elongation during production.

**Insects and Diseases**

One of the greatest attributes of polygonatum is...
the minimal occurrence of insect pests and diseases during production is usually minimal. Occasionally growers may see slugs or sawfly larva (nursery settings) feeding on them. Although Solomon’s Seal can be generally grown without the incidence of plant pathogens, fungal leaf spots, Colletotrichum and rust diseases are the most common diseases to attack them. Routine scouting should be sufficient to detect the presence of any pests or diseases and to determine if and when control strategies are necessary.

Forcing

One of the most challenging aspects of growing Polygonatum is bulking. It is not uncommon for the containers to appear thin and to only have a few shoots in each pot. For this reason and due to its slow-growing habit, it is not feasible to quick crop Solomon’s Seal. It is important to allow adequate time for them to grow to an acceptable size for the containers in which they are being grown. In most cases, growers should consider them a long term crop (planting this spring or summer for the following spring’s sales).

The specific requirements for flowering have not been researched. Based on past observations, I suspect that polygonatum ‘Variegatum’ has an obligate cold requirement for flowering. Overwinter established containers for at least nine weeks at temperatures below 40° F. It blooms naturally in late April or early May; therefore, I anticipate that it is a day-neutral plant.

In smaller container sizes (5-inch or smaller), I have grown marketable plants in as little as eight weeks. The fullest and highest quality plants were always obtained when a bulking period was provided the year before they
were to be sold. For spring forcing, grow them under natural day lengths and with cool growing temperatures. Flowering will occur in seven to eight weeks when they are grown at 60 to 65°F.

Availability

Polygonatum odoratum ‘Variegatum’ is available in small container sizes from a number of reputable perennial suppliers. Bareroot can be obtained from Garden World (www.gardenworldinc.com), Walters Gardens, Inc. (www.waltersgardens.com) and Van Bloem Gardens (www.vanbloem.com).

Paul Pilon is a horticultural consultant, owner of Perennial Solutions Consulting (www.perennialsolutions.com), and author of Perennial Solutions: a grower’s guide to perennial production. He can be reached at 616.366.8588 or paul@perennialsolutions.com.

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