
SMALL FRUIT PLANTING - REASONS FOR PLANNING AHEAD

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More often than not you have heard recommendations that call for planning planting activities a year in advance for perennial crops such as small fruit: blueberries, brambles and strawberries. This recommendation is an important one and made for several key reasons: future weed control, fertility management, soil building, and to facilitate early planting. It also provides plenty of time for the grower to do their homework on cultivars, culture and planting arrangements, and to secure orders in advance with nurseries.

Weed control is the most common problem faced by small fruit growers. In particular, perennial weeds in a perennial crop make for a difficult situation, especially when they are entwined with thorny brambles. Site preparation in advance can help you reduce future weed pressure. First it allows eradication of existing perennial weeds by non-selective chemicals such as glyphosphate (Round-up™). Critical to control of many perennial weeds is killing of spreading underground plant parts, such as rhizomes in Johnson Grass. This requires using appropriate timing to ensure the herbicide is carried downward, and is not just killing the foliage. Generally late summer to early fall is the ideal time to apply, as plants translocate nutrients downward to over-wintering parts in response to various end of season cues such as shorter days and lower temperatures. For annual weed control, advance soil preparation in the year prior can help reduce future weed pressure. Use of stale seedbed preparation and repeated light tillage through the season encourages weed germination and destroys successive flushes of new weeds, thereby reducing weed seed population in the top layers of soil.

Fertility management is another important planning component. Soil tests should be taken the season prior to planting to determine relative levels of phosphorous and potassium, soil pH, and to detect any micronutrient deficiencies that might exist. Though soil nitrogen is a key element in plant nutrition it is commonly not tested because of its relative mobility and changing nature in the soil. However, we can get a good test for P and K status, and it is important to build and ensure that these nutrients are at adequate levels before planting. The fall prior is probably the best time to take a soil test and apply amendments, unless a cover crop is being grown for soil building purposes. If this is the case, testing and nutrient application should occur before the cover crop is established.

One of the important services that Virginia Tech does for growers is soil testing. Contact your local Extension Agent who can provide you with sample containers, directions and will assist you in getting the sample off to our lab on campus. In general, both P and K should be adjusted to moderate to high levels for small fruit crops. In particular, phosphorus levels are important because unlike nitrogen or potassium, surface applications after planting are less mobile and do not reach the roots. Thus for perennial crops, initial phosphorus build-up is targeted for the life of the planting.

Adjustment of pH is also important and extremes need to be corrected at least a year in advance. Because of the buffering nature of the soil, it takes time for the soil pH reaction to change after application of lime to increase pH, or elemental sulfur to reduce it. Usually this is a minimum 6-9 months, after which a follow-up test should be taken before planting to assure the target pH range has been reached. Blueberries thrive in a low soil pH environment (4.5-5.5), much like azaleas and rhododendrons. Many areas of Virginia have naturally acidic soils and little pH amendment is needed. However a measure of pH drop is usually necessary, and as stated before, takes time to achieve.

For less productive soils, it may be advantageous to grow soil-building cover crops on the site for at least one, if not two to three years prior to planting. Legumes are a good choice and offer the advantage of forage hay-harvest as well. The benefits of cover crops are many, including reduction of future weed pressure, reduced runoff of water, better drainage and most importantly addition of organic matter and increased soil tilth and health.

Lastly, it is often advantageous to have sites pre-worked or bedded before spring planting, which should be done as early as feasible in the spring to allow for adequate establishment. In heavier soils, it is recommended that small fruit be planted on raised beds for increased drainage. As compared to the spring, fall tillage and bed formation allows greater flexibility for the grower, and planting can begin earlier on pre-formed beds, with reduced time needed to wait on soils to dry out.

Good planning is a key element for success with small fruit. Growers should consider the considerable expense involved in establishment, and the longevity of these plantings, and take the time to do the best job possible. Advance consideration of pre-plant issues will save the time and expense of taking corrective measures in the future. Too often, plantings are made in a rush or as a last minute idea in the spring. In reality it would be more cost effective for the grower to delay a year, and implement the advance planning measures as outlined above.