Assessing and Improving Your Soil: The Key to Healthy Plants

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A quick scan of gardening blogs would suggest that lavender is the perfect plant to grow. It doesn't need water or nutrients and it repels pests. However, most experienced growers know the reality. Lavender is a living plant just like any other; it needs water, nutrients and has plenty of pests. The challenge is to convince growers that adding water and nutrients and managing pests is necessary, given that lavender can survive under very dry and infertile conditions. There is a difference between surviving and thriving.

Your soil is the most important factor in determining how your lavender crop performs. It provides the water and nutrients for the crop and determines how well your site drains after heavy rains or snow melt. The health of your crop also influences its susceptibility to many (not all) pests and often dictates how well it will withstand damage from pests and a harsh winter.

The first step in improving your soil is to assess what you have. That requires collecting soil samples from each distinct area of your farm and submitting them to an OMAFRA Accredited Laboratory for a full nutrient analysis. You may also need a soil texture analysis at the same time to understand the water holding capacity and potential drainage issues with your farm. Soil texture analysis may require taking deeper soil samples if there are potential drainage issues further down your soil profile. Consult the following resources for more information:

Soil Nutrient Sampling Methods – OMAFRA

A Guide to Soil Sampling for Lavender

OMAFRA Accredited Soil Labs

If there are red flags with the soil texture analysis (e.g., the soil is clay) you may have to modify your plans by choosing other areas in which to grow your lavender, or improving the site through additions of organic matter, use of raised beds, installation of tile drainage, and/or finding areas of slope to allow for better drainage. Note: Adding sand or gravel usually does not improve soil texture/structure and should be avoided. Another red flag would be soils that are sandy because it will be even more important to consider the irrigation needs of your crop. For more information on soil texture and structure, consult the following blog post:

The Key to Successful Lavender Production: Your Soil

The next step is to adjust your fertility based on your soil analysis report. The most important aspects to focus on are your soil pH and the concentrations of phosphorus (P) and potassium (K). It is best to adjust these to the proper levels before you plant lavender. For more information consult the following OMAFRA resources:

OMAFRA Publication 611: Soil Fertility Handbook

Lavender Fertility Presentation (Incl. Understanding Soil Test Reports)

Fertilizer Calculations for Lavender

Finally, it is important to continually monitor your soil nutrients over time (e.g., every 2 to 3 years), observe plant health each season, and adjust fertility, drainage, and irrigation as necessary. All of this will ensure the healthiest lavender crop possible, but don't forget about those pests!