



High Tunnel Planting Calendar

By Joshua Knight¹ and Rachel Rudolph²

Introduction

This publication was developed to be provided with the [High Tunnel Planting Calendar](#) and not meant to be a comprehensive guide to high tunnel production. The reader should consult the Center for Crop Diversification (CCD) Publication titled [High Tunnel Overview \(CCD-SP-2\)](#) for a concise guide on the use and principles of high tunnel production and season extension.

Principles of High Tunnel Production/ Season Extension

Put simply, high tunnel production is a practice used to provide moderate climate control. One benefit of the climate control is the extension of the regular growing season, both in the spring and fall. Highly variable weather patterns during the spring and fall can create instability from a production and marketing standpoint. By providing protection from the elements, high tunnels provide a certain level of stability for their crop and their market. Because high tunnels provide protection from cooler weather, growers are able to start planting earlier in the spring while also harvesting later into the fall (compared to typical field production) which can also create additional income.

While some protection from cold weather patterns is expected of high tunnels as growers move into the fall and winter, there will be days of cool weather and minimal sunshine where the plants are not killed, but they are not actively growing. They are surviving, but not thriving. In planning for the extended end of a season in high tunnel production, certain crops that are ready to harvest can be kept in this stage as a form of “in-ground” storage and

harvested as needed. This allows a grower to reduce dependency on cold storage infrastructure while keeping produce in a fresh state.

Using this Infographic

The numbers under each month (1, 2, 3, and 4) represent weeks for each month.

The **Direct Seed** (Green), **Transplant** (Light Blue), and **Harvest bars** (Dark Blue) represent typical intervals in average years for activity of the crop or crop group in the corresponding row (Figure 1). The diagonal blue and green section means that one can **Direct Seed and Transplant** during this time.

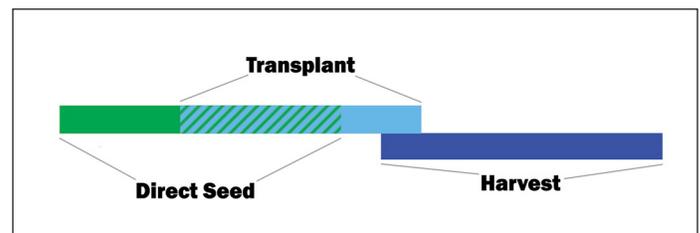


Figure 1.

These are based on conservative estimates of weather and climate patterns developed over the last few decades and should be regarded as flexible depending on air and soil temperatures each year. In using this calendar, let the current weather patterns and the predicted short term weather dictate farm activity. The High Tunnel Planting Calendar should be thought of as a fast reference to help growers plan ahead, time their different crop plantings, and/or try new crops in a high tunnel.

When approaching the time of the year indicated by the activity bars, it is important to consult the temperature col-



¹Joshua Knight is a Senior Extension Associate in the Department of Horticulture.

²Rachel Rudolph is an Assistant Extension Professor in the Department of Horticulture.

umn for the specific crop or crop group. Both columns refer to the air temperature inside the high tunnel and it should be noted: thermometers are a critical instrument in high tunnel management. **MIN** (short for **Minimum Temperature**) is the point at which tissue damage and plant death can occur. **OPTIMAL** refers to the **Optimal Temperature Range**, or the range where tissue growth occurs and plant health thrives. Hours and entire days spent inside this range are necessary for the plant to continue developing, maturing, and reaching harvest.

The crops listed along the left column have a background color that corresponds to their **plant** or **botanical family**. In general, growers can reduce the risk of disease pressure by not planting crops from the same family in the same soil in consecutive years.

Some crops listed in the left column have a number notation (1-7), which refers to the **Alternative Crops** section in the bottom left corner. For example, **parsley** has a similar temperature and timing interval to **cilantro** and **dill**.

If you are a grower and you are not in the **Region** noted on your planting calendar, you can estimate the timing interval for another region by adding or subtracting days (Figure 2).

Generally speaking, growers in **Region 1** can plant/harvest approximately 10-14 days earlier than **Region 2** and 21 days earlier than **Region 3** in spring. Conversely, growers in Region 1 will plant/harvest approximately 10-14 days later than Region 2 and 21 days later than Region 3 in the fall. This is only intended to help make estimates if you are unable to

reference the High Tunnel Planting Calendar for your region.

A final detail worth mentioning is that **strawberries** are botanically a perennial, but many commercial growers treat them as annual crops and refresh the production bed and replant after a season's harvest. The type of strawberries planted in a high tunnel are June-bearing. They perform best on black plastic. The planting calendar schedule reflects that practice.

Additional Resources

Greenhouses, High Tunnels, & Low Tunnels

www.uky.edu/ccd/production/system-resources/gh-ht
IPM Scouting Guide for Common Problems of High Tunnel and Greenhouse crops in Kentucky (ID-235)
<http://www2.ca.uky.edu/agcomm/pubs/ID/ID235/ID235.pdf>

High Tunnel Blackberries and Raspberries (CCD-CP-8)
<http://www.uky.edu/ccd/sites/www.uky.edu.ccd/files/HTbrambles.pdf>

High Tunnel Strawberries (CCD-CP-61)
<http://www.uky.edu/ccd/sites/www.uky.edu.ccd/files/hightunnelstrawberries.pdf>

High Tunnel Tomatoes (CCD-CP-62)
<http://www.uky.edu/ccd/sites/www.uky.edu.ccd/files/hightunneltomatoes.pdf>

High Tunnel Leafy Greens and Herbs (CCD-CP-60)
<http://www.uky.edu/ccd/sites/www.uky.edu.ccd/files/hightunnelgreens.pdf>

Suggested Citation:

Knight, J. and R. Rudolph. (2019). *High Tunnel Planting Calendar*. CCD-FS-9. Lexington, KY: Center for Crop Diversification, University of Kentucky College of Agriculture, Food and Environment. Available: http://www.uky.edu/ccd/sites/www.uky.edu.ccd/files/HT_calendar_intro.pdf

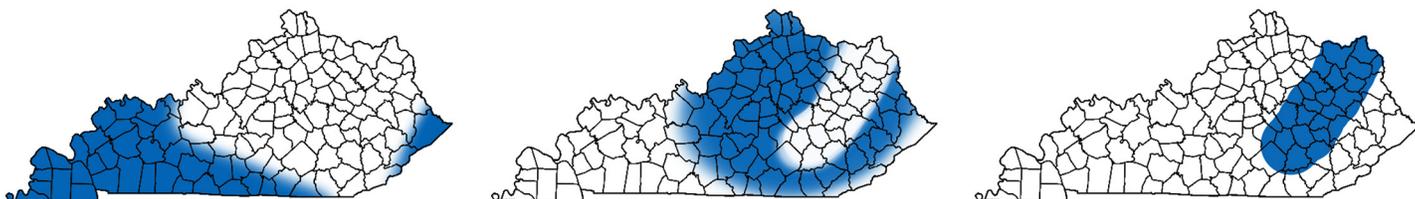


Figure 2. From left: [Region 1](#), [Region 2](#), and [Region 3](#).

Reviewed by Christy Cassidy and Brett Wolff, UK Extension Specialists
Graphics courtesy of Joshua Knight

January 2019

For additional information, contact your local [County Extension](#) agent