

Containers can provide gardeners control over invading insects or weeds



An onslaught of slugs and an ongoing field bindweed (*Convolvulus arvensis*) bout inside my Laramie County greenhouse brought about a switch to fabric container gardening inside and outside the structure.

I installed a 50-foot hoop house a number of years ago and had incredible results the first two or three years. The increased heat and reduced wind extended the growing season by two to three months. With the good came a number of unexpected issues, including a significant spike in a slug population with a voracious appetite for tender plants, and a relentless crop of bindweed. It seems the warm and humid winter temperatures inside the hoop house favored slug reproduction, and without significant

chemical warfare, both problems persisted and only increased year to year.

Making the switch to containers

After a lot of research and brainstorming with other Laramie County gardeners, I resigned myself to transitioning both the outside garden and hoop house from in-ground growing to container gardening. Containers reduced the number of slugs but did not entirely eliminate the problem. The containers also provided a clean soil and physical barrier to prevent existing seeds and rhizomes from bindweed plants, for example, of taking hold. The change resulted in easy insect and weed control, but there are considerations.

The fabric containers were filled with a clean, certified organic, weed-free potting soil, which addressed two immediate needs: eliminate slugs and their eggs and rhizomes and seeds of weeds. No soil from the existing garden was used. The potting soil was advertised as having fertilizer incorporated, but additional liquid and granular fertilizers were added to individual containers to meet a plant's needs, especially as the season progressed.

The organic soil was coarse, containing small bark pieces, and there were concerns about germination of small seeds such as carrots, lettuce, arugula, and herbs. A small circle was cut from bird netting to create a grid to ensure proper spacing of seeds. The grid was removed, and then followed by a thin layer of seed potting soil. Overhead watering twice a day on a timer kept the top layers of the soil moist.

Germination, especially in the hoop house, was very consistent and quick.



Justin Williams

Container advantages

Drainage is one of the biggest advantages in using fabric pots in a greenhouse or high tunnel, where the humidity is often high and water loss is minimal. Excess water drains from the container, reducing overwatering and potential root rot. Plants grown in fabric containers tend to have increased root mass because the roots grow laterally and toward the center of the container.

An increase in root mass improves plant stability and crop yield. Additionally, fabric containers allow heat to escape, reducing soil temperatures. This is important for high tunnel and greenhouse situations in which at times temperatures can be very hot during the summer and almost unsuitable for some plants.

Container disadvantages

While there are a number of advantages of growing vegetables in containers, some of the disadvantages include the additional expense of purchasing the containers and the soil to fill all the containers.

Fabric containers are developed to use for numerous seasons but may have a shorter lifespan in comparison to traditional plastic containers. Increased monitoring for nutrient deficiencies and the need to continually add fertilizer are additional considerations for container gardening.

As the season progressed, some soil and containers needed fertilizer sooner than anticipated. Plants were monitored for discolored leaves that often indicate a nutrient deficiency and soil moisture. Adjustments were made from week to week. Delays in the spring led to late planting of many seeds, so cool-season crops such as spinach, broccoli, and kohlrabi bolted due to temperatures above those desired for these crops. Other plants, such as peppers, tomatoes, and celery, were transplanted and quickly took to the containers and thrived with the hot temperatures.

Allow easy adjustments to inclement weather

An early September snowstorm hit Laramie County and much of Wyoming, and most gardeners scrambled to pick everything they could salvage before temperatures plummeted and snow blanketed their once-thriving gardens.

The hoop house was sealed and a small propane heater used during the coldest periods kept inside plants nice and warm. The containers on the outside were loaded onto pallets and moved with the tractor

to the garage. The ability to address the early winter snow by moving the containers prior to the storm made the decision and investment in containers even more apparent.

If struggling with Wyoming's challenging gardening conditions, consider the possibilities and advantages of container gardening in 2021. Winter is a great time to plan for next season's crops. Check out the list on page 9.

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We think **Justin Williams** applied grounded common sense to solve the pickle he was in (we could not resist a vegetable reference). He lives in Cheyenne and can be reached at Keystone290002@yahoo.com.

For more information

Want to know more container gardening information? The University of Wyoming Extension publication *Landscaping: Container gardening* is available by going to www.uwyo.edu/barnbackyard and clicking on Treasure Trove of Information at left, then on Gardening, then General and scrolling down to UW Extension Publications. You'll also find articles about high tunnels and greenhouses under Season Extension.



Justin Williams

VEGETABLE DESCRIPTIONS AND SUGGESTED VARIETIES FOR WYOMING GARDENS

Information excerpted from Growing Vegetables in Wyoming, B-1115R, bit.ly/wyo-grow-vegetables. Numbers in parathesis indicate days to maturity.

Asparagus—Jersey King, Jersey Knight, Mary Washington, Purple Passion.

Beans—Bush: Bush Blue Lake 274 (58), Early Contender (49), Kentucky Wonder (60), Tenderpick (54), TopCrop (51), Mascotte (50), Derby (57). Pole: Kentucky Blue (65), Kentucky Wonder (67), Scarlet Runner (70), Seychelles (55), White Half Runner (60)

Beets—Detroit Dark Red (63), Red Ace (53), Ruby Queen (55), Avalanche (50)

Broccoli—Bonanza (55), Green Comet (40), Green Goliath (55), Packman (57), Artwork (55)

Brussels sprouts—Jade Cross (85), Long Island Improved (90), Tasty Nuggets (78), Hestia (100)

Cabbage—Copenhagen Market (70), Earliana (60), Golden Cross (45), Salad Delight (red, 50), Stonehead (65), Katarina (55)

Carrots—Danvers Half Long (75), Little Finger (65), Short ‘n Sweet (68), Sweet Treat (70), Thumbelina (77), Purple Haze (70)

Cauliflower—Early White (52), Self-Blanching Snowball (70)

Cucumbers—Pickling types: Bush Pickle (45), County Fair (52), Homemade Pickles (60), Pick a Bushel (50). Slicing types: Bush Crop (60), Early Spring Burpless (52), Salad Bush (57), Sweet Success (58), Green Light (42), Saladmore Bush (55)

Eggplant—Ghostbuster (72) (white), Vittoria (60), Patio Baby (75), Hansel (60), Fairy Tale (75)

Kale—Blue Curled Vates (56), Dwarf Siberian (58), Red Russian Heirloom (60), Prizm (60)

Kohlrabi—Early White Vienna (55), Grand Duke (50), Purple Vienna (60), Sweet Vienna (45), Konan (50)

Lettuce—Head: Buttercrunch (65), Ithaca (65), Summertime (70). Leaf—Black Seeded Simpson (45), Prizeleaf (48), Red Sails (55), Royal Oak (50), Simpson Elite (48), Sandy (50)

Okra—Annie Oakley II (50), Baby Bubba (53), Cajun Delight (49), Clemson Spineless 80 (56), Candle Fire (60)

Onions—Candy (85), Red Hamburger (95), White Bunching (60), Warrior (60)(bunching)

Parsnips—All-American (105), Hollow Crown (105)

Peas—Edible-pod varieties: Dwarf Gray Sugar (66), Little Sweetie (60), Oregon Sugar Pod II (68), Snowbird (58), Snak Hero (65). Snap: Sugar Ann (56), Sugar Daddy (72), Sugar Snap (70), Super Snappy (65). Garden: Early Alaska (52), Little Marvel (62), Maestro (61), Mr. Big (62)

Peppers—Sweet: Crispy Bell (65 from transplant), Early Crisp (60), King of the North (65), Red Beauty (68), Just Sweet (70), Orange Blaze (70), Pretty N Sweet (60). Hot: Big Chile (68), Biker Billy (66), Garden Salsa (73), Tam Mild Jalapeno (70), Flaming Flare (75), Aji Rico (75)

Potatoes—All Blue (blue tuber), Early Ohio (white skin), Kennebec (brown skin), Norland (red skin), Red Pontiac (red skin), Yukon Gold (yellow tuber), Clancy (red skin)

Radishes—Champion (25), Cherry Belle (22), Crimson Giant (30), Easter Egg (30), White Icicle (35), Roxanne (27), Rivoli (30)

Rutabagas—American Purple Top (90), Laurentian (90)

Spinach—Avon (44), Bloomsdale Long Standing (48), Teton (48), Tyee (45), Melody (45)

Summer squash—Black Beauty Zucchini (50), Bossa Nova Zucchini (45), Early Golden Summer Crookneck (53) (yellow), Early Prolific Straightneck (50) (yellow), Jackpot Zucchini (42), Saffron (55) (yellow straightneck), Sunny Delight (45) (scallop)

Sweet corn—Early and Often (65), Early Xtra-Sweet (70), Honey and Cream (84), Northern Seneca Snowshoe (65), Quicke (68), Sugar Baby (65)

Swiss chard—Bright Lights (60), Lucullus (60)

Tomatoes—Bush: Celebrity (70), Patio Choice Yellow (65), Fantastico (90), Terenzo (98), Italian Gold (90), Roma (75), Sub-Arctic Plenty (50), Cold Set (65). Vining: Early Girl (52), Gardener’s Delight (65), Lemon Boy (72), Super Sweet 100 (65)

Turnips—Purple Top White Globe (57), Tokyo Cross (35), Just Right (70)

Winter squash—Early Acorn (75), Early Butternut (82), Sweet Mama (75), Table Queen Acorn (80), Waltham Butternut (85)

Cucumbers, eggplant, okra, winter squash, peppers, and tomatoes are not recommended for elevations above 6,500 feet.