



ROW COVERS

A very useful tool for our Inland Northwest gardens, a row cover, also called floating row cover or spun-bonded row cover is a lightweight, gauze-like white fabric permeable to light, water, and air. Row cover is made from polyester, spun-bonded polypropylene cotton, or polyvinyl alcohol (PVA) and comes in many thicknesses or weights. Row cover enhances the growing environment for early and late-season growth of vegetables and ornamental plants. Row covers are used to modify the microclimate around plants, to create a physical barrier against insect pests and to extend the growing season by conserving heat and protecting from plants frost.

Available in many lengths and widths that can easily be cut with scissors, there are three weights of row cover:

- Light weight row cover (0.45 oz./sq. yd.) allow 90% light transmission and are commonly advertised as insect barriers; they generally do not provide frost protection.
- Medium weight row cover (0.50–0.55 oz./sq. yd.) are the most common type. They allow 85% light transmission and frost protection down to 28°F.
- Heavy weight row cover (0.90–2.0 oz./sq. yd.) allows 30%–50% light transmission and frost protection down to 24°F–28 °F

The lighter weight materials, referred to as floating row covers, are laid directly on the crop, and lift as the plant grows, while heavier materials require hoops to hold the fabric off the plants. See WSU Fact Sheet [FS089E](#), How to Install a Floating Row Cover for further information.

The type of plants, your desired benefit, and your budget should all be considered when selecting the row cover material.

Many benefits are experienced from the use of row covers:

- Extended Growing Season - Crops may be planted 1-2 weeks earlier than usual and the season can be equally extended in the fall. The greenhouse effect warms the soil and speeds up germination, root growth and nutrient uptake. Medium weight fabric is commonly used for this purpose, and should be removed early to mid-June, making sure it is removed when the insect-pollinated plants begin to flower and for the heat-sensitive greens and brassicas.
- Moisture Retention - Rather than evaporating, water condenses on the underside of the row cover and returns to the soil. Protection from the wind also aids the plant in retaining moisture. It is important that the row cover be securely fastened so the material won't flap in the wind and damage the plants. Overhead watering will permeate the fabric, but drip or soaker hose irrigation is best under the fabric.
- Frost Protection - The amount of frost protection provided varies by the material used. For better frost protection, heavier weight materials or two layers of medium are used. Hoops are needed to support the heavier fabric since plant material touching the cover material could be damaged by frost. The heavier fabric should be removed by early June.

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C187 – Row Covers

- **Pest Protection** - A floating row cover placed over seedlings before they emerge prevents insect pests like aphids, loopers, beetles, root maggots, cabbage worms, cabbage maggots, leafhoppers, and whiteflies from reaching tender seedlings. They are also great protectors from pets, birds, rabbits, and squirrels. It is important that the edges of the row cover remain sealed by either burying or weighting the edges. Using lightweight material allows the cover to remain in place during hot weather for plants that do not require insect pollination like broccoli, kale and spinach, and other greens and brassicas. During the season, you should calendar to check under the cover regularly for any missed insects and to control weeds.

There are some details that should be considered when using row covers:

- The environment under the cover is pretty ‘cozy’ for insects, so it is important that all transplants that are to be covered are free of insects at transplanting. For added protection, placing sticky traps under the cover may help capture any uninvited pests.
- Row covers do not work well if it snows after they are applied. The weight of the snow pushes down the fabric, possibly breaking branches on plants.
- Out of sight, out of mind. It is easy to not check plantings under the row cover as often as one should. Set up a schedule for looking under the covers and checking for insect presence and weed growth.
- Row covers present physical barriers for insects including bees; many crops require pollination, make sure to remove row covers as flowering commences.
- Watch for warnings when air temperatures are above 80 degrees. Temperatures inside row covers can get extremely high and injure crops.

Row cover use has proven to be an important technique in obtaining higher quality and higher yield plants.

Sources:

Row Covers, C187

How to Install a Floating Row Cover (Home Garden Series), WSU publication FS089E (2012)

<https://s3.wp.wsu.edu/uploads/sites/2071/2014/04/Install-a-Floating-Row-Cover-FS089E.pdf>

[Grounded](#)/Grant County Master Gardener Newsletter March 2021 Volume 10 Number 1

Washington State University, Snohomish County Extension Fact Sheet #19.

<https://s3.wp.wsu.edu/uploads/sites/2053/2012/11/19RowCovers.pdf>