# **How Polytunnels Help Gardeners in Colder Climates**

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Polytunnels, high or hoop tunnels as they are sometimes known, are semi-permanent structures designed to be a cheaper alternative to greenhouses. Constructed from a series of hoops and covered in polythene, this simple design is having a dramatic effect on fruit and vegetable horticulture, particularly in colder areas.

## **Growing Season**

The University of Minnesota started conducting research into tunnels in 1999, and now the state is a national leader in the field, with over 800 tunnels in use. They found that polytunnels extended the growing season, as the temperature inside is several degrees warmer. This means fruits and vegetables can be planted earlier and harvested later by several weeks either end. The research also found that plants grew more quickly and resulted in higher yields.

By extending the season at both ends, growers can meet consumer demand at times when competition is lower and prices are higher.

## Consistency

As the weather inside the polytunnel is more consistent than outside, it allows for a wider variety of crops to be grown. Plants that don't take kindly to sudden changes in temperature, humidity or wind can survive more readily in a tunnel.

#### Protection

For states such as Oregon and Washington, high tunnels are being effectively used to protect crops against the winter rains, whereas in warmer areas the tunnels are providing shade and helping to avoid <u>sun scald</u>.

Fewer pests like black fly or wind-blown weed seeds will end up in polytunnels, which means pesticide use should be reduced. This does also mean that beneficial insects like bees and ladybirds will be kept out too, unless deliberately introduced inside the tunnel.

### **Types of Polytunnel**

Not all polytunnels are equal, so it's important to know what to look for. The polythene should be thick and have good insulation properties. The cover should be 180 microns thick and consist of several layers. The plastic should have anti-drip properties, so that condensation won't cause a problem. If the cover is opaque, the light will pass through and bounce around inside, benefiting the plants. It's essential that the tunnel has doors both ends for maximum ventilation, otherwise you'll end up with mildew and other problems. In areas of high snowfall, a gothic design should be considered, as the peaked roof means it's less likely to collapse.

It's important to <u>rotate crops</u> to avoid disease and nutrient loss in the soil, so you may wish to consider two smaller high tunnels or have several crops that you can rotate in a larger tunnel.

There's now no doubt that the use of polytunnels has radically improved the business of growing fruit and vegetables in areas with challenging climates, such as Minnesota.