



Spencer Horticultural Solutions

Homegrown Horticulture

TIPS FOR SUCCESS IN YOUR OWN BACKYARD

Options for Protecting Plants

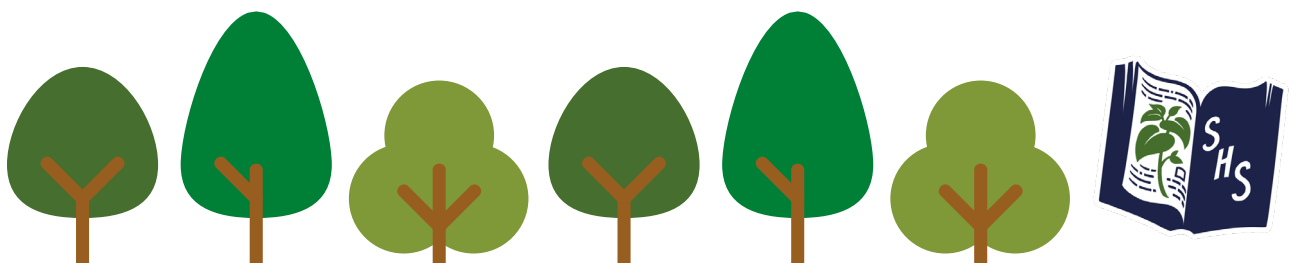
Sometimes spring (and summer) can take its sweet time showing up. With an already limited growing season length for most gardeners in the Canadian Prairies (basically Zone 3 or worse), it can be frustrating to have to wait until all risk of cold and frosts is gone to plant our vegetables, whether they be tender or tough. Even plants that are ok with cooler soils and lower air temperatures will succumb to a hard freeze. Plants that need warmer soil and air temperatures (e.g., tomatoes, cucurbits, beans, etc.) are typically put out much later, when the risk of frost is over. The sort of protection that you need to supply will depend on the plants. Consider their temperature tolerance, their size, and the likely obstacles that they are going to face.

Are there ways to beat the system and create a bit of an artificial environment that will benefit plants and give them an edge in the early season? Ultimately, you don't need anything super fancy or complicated to increase soil and air temperatures around the plants a few degrees. You also don't need anything permanent.

In some cases, you could use something like a heavier weight row cover, or maybe a few layers of a lighter weight fabric. Using something like a spun-woven fabric cover that you might use to protect from insects will also allow light, water, and air to move through, but will trap and conserve heat a little bit. And a "little bit" is all you really need. Using a clear plastic might give lots of heating, but there is next to no heat retention, so while it heats up quickly, it also cools off quickly. A fabric cover will give you a few degrees of protection, depending on the temperature. I wouldn't suggest that this will be enough to protect something that needs at least 10°C or more, but it can warm up the soil and help new plants get a few days jump on the season.

I have had good success using something called a Wall-o-Water. Basically, it is a plastic teepee/cone made of individual connected hollow tubes, which are filled with water. The filled device is put over the top of a plant that is in the ground and the top closed. In the daytime (regardless of temperature), it lets light pass, creating a sort of greenhouse effect for the plants, increasing temperatures, and speeding up growth. If it gets cold or snowy, the heat that is trapped in the water slowly releases and protects the plants. I find that they are very effective in speeding up the growth of warm season plants like tomatoes and peppers. Keep in mind that they only work over single plants, not rows. I tend to use them in mid-May onwards, when temperatures bounce up and down a fair bit.

You could also use some variation of the "cloche" or French "bell", which is a glass greenhouse for your plants. There are other variations out there (made of plastic). They would provide an increase in air temperature, but I'm not sure that they'll provide complete protection from lower temperatures.





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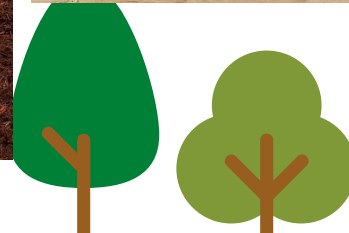
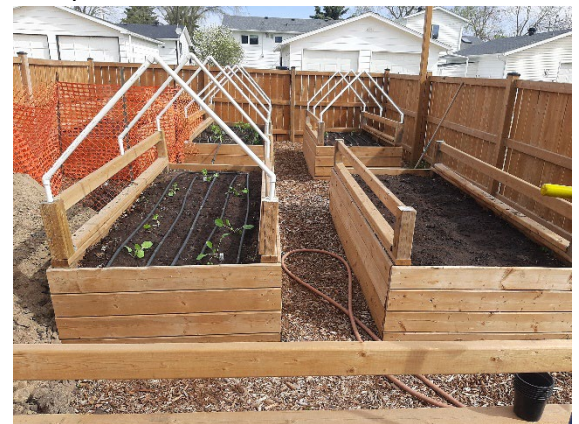
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To protect new plants from cold winds and the other stresses that they face in the spring, you can put up temporary windbreaks, or little covers that shelter them a little bit. Some people will use large cans, or milk cartons, which extend up around the plant to break the wind a bit. You could also plant strips of something grassy that grows up quickly and that can be removed later. If you want to shelter plants down the road, plant occasional rows of tall growing stuff (like corn) to block the winds for smaller stuff.

In the past, I build some mini greenhouses over 3 of my 6 raised beds. The idea came from when I had to build railings to keep our loveable but plants'-personal-space-indifferent puppy out of the beds. He'd developed the habit of leaping from bed to bed over the winter, but that boat wouldn't float for me for the summer, so railings it was. I built ribs from PVC pipe and put some scrap vapour barrier over the top. I made it so the sides and ends could be lifted to keep the temperature from getting too hot in the peak of summer. They weren't sealed, but they did an ok job of protecting the plants for the most part. The only hiccup was when we had a stretch of cool, cloudy days where the temperatures didn't get up very high, and then the skies cleared off in the evening, causing the temperature to plummet. The next year, I put sheets over the plants inside the greenhouse when there was a risk of a hard frost. It keeps the warm season stuff from getting nipped. You could also put in floating row covers underneath the greenhouse covers, amplifying the affect. Overall, it is a good system.

If you don't have raised beds, you could create a covered structure over sections of your rows, using pipe, galvanized wire, or other supports. It is done in the market garden industry and it can be done in the home garden.

When it comes down to it, some plants just have to wait a little bit before they get put out in the garden. Start them indoors to gain weeks of growth, but then put them out when the risk of frost is past. Start the cold-tolerant stuff outside and bring the warm-loving stuff out when it's safe. Once you have a good handle on what works, then you can start to push the envelope.



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