

SEASON EXTENSION FOR SALAD GREENS

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At Star Light Gardens, a USDA certified organic farm, we have found that the essential elements of a successful season extension program are 1).an environment that is friendly for growing crops 2)most appropriate choice of cultivars 3).timing and 4).weed control. Let's look at these four elements.

Environment

The most important thing to remember is to do is to provide as much protection as possible for your greens and to choose cultivars that are the most cold tolerant. There are three different environments that we have considered for extending the season. They will be discussed in order of maximum to least amount of protection from the cold. The first choice,which offers the most protection, is to grow one's greens in a high tunnel. Additionally, a sturdy row cover is put over the greens. Low wire hoops protect the greens from being in direct contact with the rowcover. There is usually a fair amount of moisture in a winter house. This moisture will freeze the greens to the rowcover otherwise and disfigure the green. In a tight house, it is pretty easy to gain a zone and a half. For us, that would mean an environment similar to being outside in southern New Jersey.

The next environment to consider are low tunnels. These are simple, cheap and easily erected outdoor structures, built right over existing beds of greens. One can get pre-bent wire hoops that you place over the row, cover the hoops with 2 layers of 2ml construction grade plastic and weigh down with sandbags at each hoop. Leave extra plastic at the ends. This is a fast, effective way to increase the square footage of greens under plastic. Additionally, it keeps the plants really well protected.

The last environment is to cover plants outside with row cover. This is a simple strategy that will help late plantings of greens thru the first few frost. Depending on the weight of the rowcover,you can gain from 2-10 degrees extra in heat retention.

Choice of Cultivars

Most brassicas have resistance to frost and mild freezing temperatures. They are also less sensitive to the lack of light that occurs as winter approaches. Within this group, kale is far and away the most durable and resistant to cold temperatures. Many times I have picked kale that is outside, unprotected in a January field. It is perfectly delicious. In fact, in many cases, the flavor improves dramatically with colder temperatures. This is simply because plants produce a lot of carbohydrates in cold conditions. This gives greens a sweeter taste. Other sturdy brassica choices are vitamin green, tatzoi, and komasuna. Mizuna, mibuna, and mustard are pretty resistant to freezing temperatures, but are more limited than the previously mentioned cultivars. Golden frill, a new addition from Johnny's this year is of very limited use for season extensions. It tends to turn yellow in colder temperatures.

Spinach is a must for the season extension grower. It is incredibly freeze hardy with a good regrowth potential. Space from Johnny's and Renegade from High Mowing are ready to withstand the cold of winter.

Other greens that should be considered are claytonia, chervil and vit. Like spinach, they are extremely resistant to freezing temperatures. All of these choices are slow to get established, but produce large quantities of fresh winter greens way into mid spring.

Timing

In order to have greens available to your customer year round, it is important to figure out a good planting schedule. As the temperature drops and the light diminishes, it will take longer for greens to get established. It is exciting to remember that one can plant some of these greens late in the fall with a late Winter maturity date. In this way, locally grown greens can be made available at times we least expect them. . When the available daylight slips below 10 hours, photosynthesis all but stops. In our area(CT), this is from around November 13 thru January 29th. In order to get a plant of harvestable size before this window of opportunity shuts, we have found that plants need to be planted around October 10th. Spinach and claytonia, as mentioned earlier take much longer to get established. If one plants spinach in late October, early November, you can expect to have a harvestable plant by late February. If spinach is planted in early February, it will be ready by mid-April. Either way, a grower has the advantage of making fresh greens available for customers, on a 12 month basis if they plant things correctly.

Weed Control

Our high tunnels have been used all summer for tomato production. After the plants have been removed, an inch or so of compost is added on top of the soil. Also, about 35 lb./1000 square feet of alfalfa meal and the same amount of organic fertilizer could be mixed into the compost. No steel is used at this point. It is important to not expose any new weed seeds to light and possible germination by turning the soil over. After everything has been spread out in the house, the soil is thoroughly soaked to encourage the germination of any weed seeds and tomato volunteers. At the end of 10 days, the soil is flamed(stale bed method). This process should eliminate many of the possible emerging weeds that would get in the way of your greens production. Besides tomato volunteers, chickweed really can come in strong in the mid to late fall. If you take care of this early and get your greens growing rapidly, in all likelihood they will win the weed race. We used to spend a lot of time laying out elaborate rows and sections, but over the years, it became apparent that the best thing to do is just plant every square inch of your high tunnel. The fact of the matter is that if you stale bed effectively, and water your seeds immediately, all you need to do is keep things covered and wait until they are mature enough to harvest. Walking over newly harvested greens is not the best thing for the second cut, but the damage is minimal. Second cuttings aren't as productive as first cuts, so in many cases, it is better to scrap off the first cut with a stirrup hoe and re plant. For claytonia and spinach, this would be a mistake. It takes almost all winter to establish a good crop and its regrowth is very heavy. It should be noted that good soil stewardship, like in all sustainable agriculture practices is essential for growing great winter greens. The less tilling and turning of the soil that you do, the better off is the new future home for your greens.

Summary

Kale, claytonia, spinach and vit are the best choices for winter production. Plant early and have crops in late fall. Keep planting to insure having available greens throughout the winter. Cover and protect them with as much as you can. Keep the weeds at a minimum by using good compost and stale bedding.

Resources

Seeds

Johnny's Selected Seeds

www.johnnyseeds.com

1 800 854 2580

They are always friendly, great service and warranty policy. Di Coty knows a lot about salad greens

Fedco

Box 520

Waterville, Me 04903

High Mowing

www.highmowingseeds.com

813 Brook Rd.

Wolcott, VT 05680

1 802 888 1800

Wild Garden Seed

PO Box 1509

Philomath. OR 97370

this company has really interesting brassicas-worth checking out

Books

The Winter Harvest Manual by

Eliot Coleman A great resource book. Order from Fedco or directly from Eliot at

Four Seasons Farm

RR Box 14

Harborside, Me 04642

Irrigation

Dripworks

1 800 522 3747

user friendly place, helps you figure out what you need to do

Rain-flo Irrigation

1 717 445 6976

East Earl, PA

Best prices on irrigation equipment and row cover.

Fast delivery

Greenhouse Supplies

Growell Greenhouses

Cheshire , CT

1 203 272 8147

Mike Tripedino. Mike has walked me thru putting up my own house. He is friendly, very interested in helping people solve greenhouse problems. He will also send crews to erect houses and re-cover them

Publications

Growing for Market

PO Box 3747

Lawrence, KS 66046

an informative-thoughtful magazine. Often has useful articles about growing winter greens.

Supportive of organic, sustainable agriculture