

## COLD CROP VEGETABLES

### COOL SEASON VEGETABLES:

These are plants prefer cool growing season.

Refer to list,

Direct Sowing in to the ground will not always work because many plants will prefer a warmer soil temp to germinate. Only certain plants can be a direct sowing: Kale, Garlic (best planted in the fall), Arugula, Garden Cress, Lettuce, Peas, Potatoes (Use only seed Potatoes), Spinach, & Swiss chard.

All of these particular plants prefer cooler soils to germinate. Most plants will survive and even produce a crop if the growing situation is not perfect, but the better we can create a good growing environment the healthier and more crop yield we will receive from our vegetables.

To warm the soil:

Many varieties of vegetables will prefer a warmer germination soil than the growing soil temperature. You can achieve this by starting your seeds indoors, in a cold frame or warming the soil using plastic row covers.

Clear Plastic: Warms the soil very well, but encourages weed germination.

Black Plastic; Inexpensive, warms the soil up great and discourages weeds.

IRT Plastic; Stands for "Infa Red Transmitting. A brownish-green plastic sheeting that allow the infrared light to pass through it to warm the soil, but blocks the wave lengths of visible light that weeds need to grow. This plastic warms the soil very well, but costs a little more. Great for growing Melons, egg plant, corn, peppers, squash and pumpkins.

Row Covers: Reemay will help you to warm your garden area and it will also act as protection for a frost, snow, some hail and also insects (thrip, whiteflies, flea beetles, leafminer, cabbage worms.)

Lightweight: 0.3 oz per sq yd. Light transmission 90%, Frost protection Poor

Midweight: 0.5-0.6 oz per sq yd. light transmission 85% Frost protection 4 degrees.

Heavy weight: 0.9 oz per sq yd. light transmission 70% Frost protection 4 to 6 degrees.

Xtra heavy weight: 1.5 oz per sq yd. light transmission 50% Frost protection 6 degrees.

Using a hoop made out of  $\frac{1}{2}$  inch pvc pipe. Space these about 3-4 feet apart. Form your Reemay cloth to cover the hoops. Attach lathe boards to both side edges of your cloth, staple together with heavy duty staple gun. Learn to unroll your cloth during the sunny and warm days and recover every evening to protect your young plants from the cold nights.

### Mulching

Apply a thin layer of mulch to lower your soil temperatures if necessary and gradually increase the depth of the mulch as the plants grow. This is especially important with potatoes.

### Hot caps and Wall O' Water

Cut the bottom off a 1 gallon milk jug and cover your plants. Remove on warm days. You should place your hot cap or Wall O' Water out in the garden 4-5 days prior to planting your seedlings.

### Harden off your Plants:

Hardening off your plants helps them to build a callous to better deal with wind, sun, and temperature fluctuations. Start with one to two hours the first day, increasing incrementally every day for 5 days or so.

### Early Crop Plant list *Germinating and Growing Temperatures:*

#### Asparagus:

*Germination Temperature 77*

*Growing soil Temperature 60-70*

#### Beans (Bush)

*Germination Temperature 75-85*

*Growing soil Temperature 60-65*

*Sow Directly into soil, does not transplant well.*

#### Beans (Pole)

*Germination Temperature 75-85*

*Growing soil Temperature 65-75*

*Sow Directly into soil, does not transplant well.*

### Broccoli

Germination soil Temperature 80

Growing soil Temperature 60-65

### Brussels Sprouts

Germination soil Temperature 75-80

Growing soil Temperature 60-65

### Cabbage

Germination soil Temperature 75-85

Growing soil Temperature 60-65

### Carrots

Germination soil Temperature 75

Growing soil Temperature 60-70

Sow Directly into soil, does not transplant well.

### Cauliflower

Germination soil Temperature 80

Growing soil Temperature 60-70

Be careful not to purchase seedlings that are root bound and do not let your own seedlings get root bound before planting them. If the seedlings are root bound the plant will "check" and stop growing only producing a "button" that will never grow into a big head.

Early Dawn, Andes, Snow Crown, and Freemont are cold and heat tolerant.

### Celery

Germination soil Temperature 70

Growing soil Temperature 60-70

Celery does best started indoors. Celery requires more water than most vegetables.

### Cabbage

Germination soil Temperature 75-80

Growing soil Temperature 60-70

Arugula

Germination soil Temperature 40-55

Growing soil Temperature 50-65

Endive & Escarole

Germination soil Temperature 60-65

Growing soil Temperature 45-65

Garden Cress

Germination soil Temperature 55-65

Growing soil Temperature 50-70

Raddichio

Germination soil Temperature 60-65

Growing soil Temperature 45-65

Leeks

Germination/Growing Soil Temperature 75

Start indoors 8-10 weeks prior to last frost

Lettuce

Germination/Growing Temperature 40-60

Roots decline above 68

Onions

Germination/Growing Temperature 65-85

Parsnips

Germination/Growing Temperature 65-75

Peas

Germination/Growing Temperature 40-75

Direct sow

Potatoes

Germination Temperature 45

Plant when Daffodils and Dandelions bloom

Rutabaga

Germination/Growing Temperature 60-85

Spinach

Germination soil Temperature 50-75

Growing soil Temperature 60-65

New Zealand Spinach handles our heat best.

Alpine Strawberries

(does not have runners)

Germination soil Temperature 65-75

Growing soil Temperature 60-80

Swiss Chard

Germination soil Temperature 50-85

Growing soil Temperature 60-65

Turnip

Germination/Growing soil Temperature 50-95

Direct Sow