

# COVER CROP FIELD GUIDE FOR NYC GARDENS



NEW YORK  
RESTORATION  
PROJECT

# WHAT ARE COVER CROPS?

Cover crops are close-growing plants sown to cover bare ground in between plantings of vegetables. They are usually not harvested or edible, but some can be. They are planted to improve soil quality and to provide other benefits to the garden ecosystem.



# WHY SHOULD I PLANT COVER CROPS?

- Improves soil quality by increasing soil organic matter.
- Prevents erosion and keeps soil in garden beds.
- Provides nitrogen for future crops.
- Improves nutrient retention and nutrient recycling.
- Suppresses weeds.
- Attracts beneficial insects.

## WHEN SHOULD I PLANT?

Cover crops can be planted during spring, summer, and/or fall. They are a great option for when you have empty garden beds with bare soil and no plans to plant vegetables in the coming month(s)

## HOW DO I CHOOSE WHICH TYPE?

### **Time of year**

- Each type of cover crop has an optimal growing season. Your cover crop options in May will be different from your options in August or November.

### **Which benefits you want**

- Different types of cover crop offer different benefits for your garden. Which benefits do you want to prioritize?

### **Consider termination requirements**

- Some cover crops can re-seed themselves and cause unwanted growth if not terminated at the correct time.

# TYPES OF COVER CROPS

## SPRING PLANTED

### **Examples:**

- Daikon Radish, Buckwheat, Oats, Field Peas

### **Typical reasons for cover cropping in the spring:**

- To prevent weeds from growing and to retain soil nutrients before planting tomatoes, eggplants, peppers, and/or potatoes in late spring.

## SUMMER PLANTED

### **Examples:**

- Buckwheat
- Oats and Field Peas
- Crimson Clover

### **Typical reasons for cover cropping in the summer:**

- To keep the soil in prime condition in between spring and fall vegetables.



## WINTER-KILL CROPS

### **Examples:**

- Oats, Brassicas, and Field Peas

### **Instructions:**

- Plant in late August through early September, potentially underneath existing crops like tomatoes or eggplants.

### **Benefits:**

- Dies when the first frost hits- no need to cut it down!
- Creates a good mulch into which you can plant early spring crops!

## OVERWINTERING CROPS

### **Examples:**

- Winter Rye, Winter Wheat, Crimson Clover, and Hairy Vetch

### **Instructions:**

- Plant starting in September up until the first frost. These plants survive the winter and resume growing in spring, so you must cut them down in early May. Not recommended in beds where you want to plant early spring crops in March/April

### **Benefits:**

- Improves soil quality and provides better weed suppression compared to winter-kill crops!

# LEGUMES

## Examples:

- Field Peas, Crimson Clover, Hairy Vetch, and Cow Peas

## Benefits:

- Provide nitrogen fixation
- Attract pollinators & host predators
- Once terminated, they provide a quick release of nutrients



# NON-LEGUMES

## Examples:

- Oats, Rye, Sorghum, Millet, Radishes, Mustards, Rapeseeds, and Buckwheat.

## Benefits:

- Provide weed suppression
- Retain nutrients in the soil
- Once terminated, they provide a slow, steady release of nutrients

# BUCKWHEAT

**Season:** Late Spring through Summer

**Instructions:**

- Sow between late-May and mid-August
- Terminate 40-60 days after planting, when flowering

**Benefits:**

- Weed suppression.
- Attracts beneficial insects including parasitic wasps, ladybugs, and hover flies.
- Very quick cover crop - establishes, blooms and matures in less than 2 months.





# HAIRY VETCH

**Season:** Late Summer through Fall

**Instructions:**

- Sow from late September up until first frost.
- Let it overwinter in the soil.
- Terminate mid-May when flowering.

**Benefits:**

- Tolerates shade.
- Produces a very large amount of biomass.
- Adds nitrogen to the soil and retains existing nutrients for future crops.



# CRIMSON CLOVER

**Season:** Late Summer through Fall

**Instructions:**

- Plant in early to mid September.
- Cut down in early May when flowering.
- Can plant with buckwheat in July for a late summer cover crop!

**Benefits:**

- Tolerates shade.
- Produces large amounts of biomass.
- Excellent nitrogen fixer.
- Good spring weed suppression.
- You can steep the flowers in hot water and add to iced lemonade for a sweet treat!





# OATS AND FIELD PEAS

**Season:** Late Summer through Fall

**Instructions:**

- Sow in August or September.
- Prefers sunny areas.
- May be killed by hard frost.
- Avoid planting beans, peas, or other legumes in the same bed after growing oats and field peas (if you can)

**Benefits:**

- Improves soil health
- Good fall weed suppression
- Excellent nitrogen fixer



# DAIKON RADISH

**Season:** Fall or Spring

**Instructions:**

- Sow in September through October to get growth before first frost or in early Spring after last frost
- May winterkill naturally or terminate a few weeks before planting

**Benefits:**

- Suppress weeds
- Deep taproots break up compacted soil and helps water infiltration.
- Adds organic material to the soil
- Helps suppress soil borne pests.





# PLANTING TIPS

1. Prepare your plot by removing weeds and plant debris.
2. Rake the soil to create a fine seedbed.
3. Broadcast the seeds evenly at a high rate- a dense covering will suppress weeds better.
4. Gently rake in the seed to bury them.
5. If possible, protect newly planted seeds with straw to prevent birds from eating them (row covers also work). Uncover once germinated.



# TERMINATION

## CUTTING VS. PULLING

Cutting the plants at the base with pruners will leave the roots in the soil, which can promote good aeration.

Pulling the plants out to remove the roots will allow you to better rake out the soil to create a fine surface for seeding.

**There are three options for dealing with the plant debris, which include mulching, incorporating, or composting.**

## MULCHING

### **Instructions:**

- If you are transplanting seedlings into your bed directly after termination, consider laying the plant debris out to cover the bare soil around your seedlings.



## **Benefits:**

- Suppresses weeds
- Retains moisture in the soil



## **INCORPORATING**

### **Instructions:**

- Chop the plant debris into hand-sized or smaller pieces and mix it thoroughly into the soil. If you choose this method, you should wait ~2 weeks before planting seedlings in order to allow the plant material to break down and release nutrients.

### **Benefits:**

- Adds nutrients and organic matter into the soil.

Cover crop being incorporated into the soil



## COMPOSTING

### Instructions:

- Chop the plant debris into hand-sized pieces and add to your compost pile. Don't forget to add a 1 to 1 ratio of brown material to aid in decomposition!

### Benefits:

- Gives your compost pile an extra boost of plant nutrients!
- Less work than mulching or incorporating into the soil.



**Broadcast seeding  
crimson clover.**



**THE CONTENTS OF THIS GUIDE WERE  
ADAPTED FROM TWO EXCELLENT SOURCES:**

Cover Crop Guide for NY Growers – Cornell:  
<https://covercrop.org>

Building Healthy Soil with Cover Crops –  
Megan M. Gregory



NEW YORK  
RESTORATION  
PROJECT

