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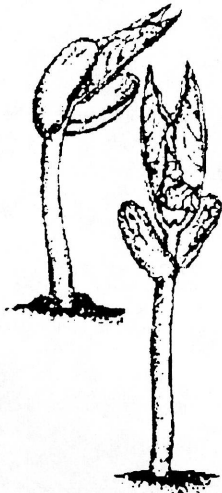
SARE Project ANE 94-019

RUTGERS COOPERATIVE EXTENSION AT THE NEW JERSEY AGRICULTURAL EXPERIMENT STATION

# PLANT & PEST ADVISORY

VEGETABLE CROPS EDITION \$1.50

APRIL 3, 1996



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## Vegetable Crops Diseases

Stephen A. Johnston, Ph.D., Plant Pathology

### ◆ General

Be sure to use crop rotation when planning fields for production. Do not grow the same crop or the same family of crop (e.g., cucurbits, solanaceous crops, etc.) in the same field as was used in 1995. When selecting varieties for production, be sure to carefully read seed catalogs for variety descriptions. Whenever possible use varieties that have disease resistance to one or more plant pathogens.

### ◆ Asparagus

Be sure to completely bury last year's brush prior to spear emergence. This will reduce overwintering sources of the pathogen that causes **Purple spot** (red lesions occur on lower surface of newly emerged spears). When establishing a new production field, apply Nematicur 3SC into the bottom of the furrow prior to planting crowns. This will increase the vigor of the planting, which reduces the incidence of **Fusarium root and crown rot**.

### ◆ Carrot

Be sure to take a soil sample from all fields that will be used for carrot production, and ship to the Plant Diagnostic Laboratory for a **nematode** assay. If a population of **Root-knot nematode** is present, apply metham sodium (Busan or Vapam) as a soil fumigation treatment or Vydate L as a nematicide treatment for control. Soil fumigation must be done 2-3 weeks prior to seeding, and Vydate L can be incorporated just prior to seeding.

### ◆ Cole Crops

Be sure seed has received a hot water treatment to reduce the incidence of **Black rot**. If seed has not been hot water treated, then treat seed according to the directions listed in the seed treatment portion of the cole crop section of the 1996 Commercial Vegetable Production Recommendations. For control of **Clubroot**, be sure the pH of the soil is as close to 7 as possible; improve the drainage in the field, and produce the crop on raised beds. Apply Terraclor 75WP as a banded application before planting, or as a transplant water treatment, or as a preplant incorporated broadcast application. When using the broadcast method of application, apply 1/2 of the recommended rate and then make beds, which will concentrate the fungicide around the root zone at the proper rate.

SEE DISEASES ON PAGE 2

## Starter Fertilizer Boosts Sweet Corn Performance During Cool Winter

*Joseph R. Heckman, Ph.D., Soil Fertility*

The cool, wet soil conditions often associated with early planting can limit the availability of soil phosphorous to sweet corn seedlings. When soil temperatures are cool and root development is slow, corn plants may turn purple. The main reason for the purpling is that plants are not able to take up P as rapidly as they need to for the leaves. The leaves continue to accumulate sugars through photosynthesis but aren't able to utilize them all without an adequate supply of phosphorous. The overload of sugars in the leaves triggers production of purple pigment called anthocyanin. Hybrids vary in the production of anthocyanin and degree of purpling. Besides excessively cool, wet, soils, other stresses that hamper root development, such as compaction or root injury, can cause purpling. In most cases the purpling is only cosmetic. It is primarily weather related and the crop will recover with warmer temperatures if soil fertility is adequate.

It is important to use starter fertilizer for early sweet corn production. Applying a small amount of fertilizer near the seed at planting provides a readily available source of nutrients to get corn off to a better start. This practice is especially helpful to early sweet corn growing during cool weather. Phosphorous availability is limited, even on high-fertility soils, when soils are cool and wet. Using a starter fertilizer can help to produce earlier maturing and higher yielding crops.

The starter fertilizer should supply 20 to 30 pounds of nitrogen and 10 to 20 pounds of phosphorous. To achieve the starter fertilizer effect follow these general recommendations:

1. Place the fertilizer so as to give the roots access to nutrients while protecting the seed from fertilizer injury. The standard practice is to place the fertilizer 2 inches beside and 2 inches below the seed.
2. High rates of fertilizer should not be used as a starter. Excessive rates can stunt seedling growth and reduce stands. Limited soil moisture increases the chance of seedling injury. Do not use more than 60 pounds of nitrogen plus potash per acre.
3. Both liquid and dry materials perform well as starter fertilizer. Monoammonium phosphate (MAP) is preferred over diammonium phosphate (DAP) as a starter fertilizer ingredient. Avoid the use of fertilizers containing urea close to the seed.
4. The total phosphorous requirement of corn can be supplied by band applying all of the phosphate with the starter fertilizer.
5. For early plantings on soils with very high soil test phosphorous fertility ratings the phosphate application should not exceed 20 pounds of phosphate per acre. No starter fertilizer is recommended for late corn plantings on soil with very high phosphorous.
6. A starter fertilizer containing some potash is recommended for soils with low or medium potassium fertility levels. □

## Growers Needed for Farmers' Markets

*Ramu Govindasamy, Ph.D., Marketing*

### Six More New Jersey Communities To Host Farmers' Markets

Based on last year's success in nearly 20 Northern New Jersey communities, additional towns will hold weekly markets during the 1996 growing season. To make the markets successful, growers of fruits and vegetables are needed to participate. Extensive publicity campaigns are underway to assure that large crowds will greet growers when markets open. The six new towns planning first year markets and their schedules are:

Town	Day	Hours	Season
Summit	Sunday	10 am-1 pm	June 16 to Oct. 27
Westfield	Thursday	2 pm-7 pm	June 13 to Oct. 31
Hoboken	Tuesday	3 pm-8 pm	June 18 to Oct. 29
Highland Park	Friday	Noon-7 pm	June __ to Oct. __
Highlands	Saturday	8 pm-2 pm	June 15 to Oct. 12
Parsippany	Saturday	9 pm-2 pm	June 22 to Oct. 26

Prominent market site locations have been selected with ample room for growers to set up and residents to park while they are shopping. Fees to participate are modest and are used to promote and manage the markets.

All participating North Jersey Farmers' Markets can be easily reached from major highways including the Garden State Parkway, New Jersey Turnpike, Interstates 78, 80 287, and 280.

This a joint project of the North Jersey Farmers Market Council, Department of Agriculture, Rutgers Cooperative Extension Service, USDA Natural Resources Conservation Service, and participating communities.

In addition to the six new towns planning farmers markets in 1996, several other towns have openings for growers wanting to participate. For information and to sign up for the markets of your choice, please call Dr. Ramu Govindasamy (908) 932-9171 Extension 25, or Pete Nitzsche, Morris County Cooperative Extension (201) 285-8300 or Ed Ferdon at (201) 748-1265. □