

can affect fruit quality detrimentally and result in increased nubbins or hooked fruit.

**Muskmelons:** Muskmelons are moderately deep rooted and require adequate soil moisture with good drainage. Natural rainfall may not be adequate, so supplemental irrigation may be required, particularly in the early stages of growth. When irrigating, irrigate the soil in the effective root zone to field capacity. A good, steady moisture supply is critical for good melon production. After melons have attained a good size, it is best to reduce irrigation. Reduced irrigation at this time can, in some cases, increase the mature fruit's sugar content. Excessive moisture during fruit ripening can result in poor quality.

**Watermelons:** Watermelons are deep-rooted plants, so natural rainfall often is adequate, and irrigation may not be cost effective on heavier soils. Adequate soil moisture in the early growth stages will help ensure vigorous growth. Soil moisture also is critical during blossoming and fruit development.

## Harvesting

**Cucumbers:** Unless a once-over mechanical harvester is being used, cucumbers should be harvested at 2 to 4 day intervals to prevent losses from oversized and over mature fruit. Desired harvest sizes range from 5 to 8 inches long and 1.5 to 2 inches in diameter for fresh market. If growing for processors, be sure to understand the specific terms of their contracts at the beginning of the growing season. Prices received are related to the quantity of fruit within specific size ranges as established by either USDA guidelines or by the processor.

**Muskmelons:** Harvesting is done manually, and great care must be exercised at picking to harvest only the

physiologically mature plants. Fruits must be in the half or full slip state. Fruit harvested prior to the half slip stage will be too green and will not ripen properly. Shipping under mature fruit has been a problem and should be avoided.

**Watermelons:** Harvesting watermelons at the correct stage of maturity is critical and difficult. While each cultivar is different, maturity can be determined in several ways, including ground spots changing from white to yellow, browning of tendrils nearest the fruit, ridges appearing on the rind surface, and a hollow or dull sound when "thumped." Melons should be cut from the plant to avoid vine damage and prevent stem-end rot. Leave 1 to 2 inches of stem attached.

## Disease Management with the MELCAST System

MELCAST is a disease warning system that can help Indiana farmers schedule their fungicide applications for control of certain diseases of watermelons and muskmelons. The system was developed by researchers in the Purdue University Department of Botany and Plant Pathology.

MELCAST is available throughout the summer at:

<http://btny.agriculture.purdue.edu/melcast>  
and  
(800) 939-1604

Each winter, Purdue Extension plant pathology specialists conduct educational programs that address the system. For more information about MELCAST, contact Dan Egel (Southwest Purdue Agricultural Research Program) at (812) 886-0198, or Rick Latin (Purdue University) at (765) 494-4639.



Bacterial fruit blotch causes small, water-soaked lesions on muskmelon that may affect fruit quality.