Welcome to Tennessee Vegetable News!

Hello, I am Annette Wszelaki, the UT Commercial Vegetable Production Extension Specialist, and I want to invite you to read this first edition of SPROUTS: Tennessee Vegetable News. The purpose of this newsletter is to keep you in touch with vegetable production all across the state of Tennessee and beyond.

Agriculture sure is changing from the types of crops that you grow to how you grow and market them. We at the University of Tennessee are here to serve the growers of the state. This means maximizing crop efficiency, diversity and marketability to maximize the money in your pocket.

The vegetable extension program focuses on providing innovations in production practices, aiding in cultivar selection, developing alternative crops, maximizing crop nutrition and flavor, and reducing the use of chemical fertilizers and pesticides for Tennessee growers through research and education throughout the state.

In this newsletter, we will keep you up to date on the vegetable research being conducted at UT, new advances in production technology, weather, and crops, and also answer your questions.

I invite you to send questions or comments to: awszelak@utk.edu

And thanks for reading!

What’s new?

I have had many calls already this Spring on herbicides, so let’s look at what’s new in chemical weed management:

- The AIM EC label has been expanded to include row-middle applications with shielded or hooded sprayers for many vegetable crops. This is a directed application of a labeled herbicide between crop rows, after it has emerged from seed or has been transplanted, made with either a shielded or hooded sprayer that is compatible with the growing habits of the crop. This type of application has great potential for TN and is currently under utilized.
- There are several new pre-mixes containing mesotrione, s-metolachlor, and atrazine, including Camix, (no atrazine), Lexar and Lumax. These are labeled for pre-emergence application in sweet corn.
- Impact (topramezone) has been labeled for postemergence broadleaf weed control in sweet corn.
- The Reflex (fomesafen) label has been expanded to include snap beans.
- Sinbar (terbacil) has been labeled for use on watermelons.

As always, consult the label for further instructions. Use of trade or brand names does not imply approval of the product to the exclusion of others that may be of similar composition, nor does it guarantee the standard of the product.

Also, the 2007 edition of PB1282, Commercial Disease, Insect and Weed Control will be available shortly for all of your chemical pest control needs.
This year we will be conducting a fresh-market, slicing tomato variety trial at the Plateau Research and Education Center, as well as on growers’ farms in Grainger Co.

Twenty-four varieties will be tested from those that are commercially available to those that are currently being evaluated for commercial release. The purpose of this project is to evaluate the plant habit, days to harvest, marketable yield, and fruit characteristics of these varieties and their adaptability for production in Tennessee. These characteristics are the standards by which growers often judge the quality of their tomatoes.

In addition to these standard characteristics, we will be evaluating quality or consumer characteristics, such as firmness, color, nutrition & flavor. Tomato flavor is an important consumer characteristic that is often overlooked, when striving to produce the biggest and reddest fruits.

Consumers make their initial purchasing decision based on appearance, but make repeat purchasing decisions based on flavor. In this study, we will conduct a consumer and grower taste panel to rate the flavor of these 24 varieties. We hope to find varieties that will keep Tennessee famous for their tomatoes… the finest tasting tomatoes, that is.

Weather Report

I don’t think even Benjamin Franklin could have predicted the weather that we’ve had in the last week! It seems the cold is mostly behind us, though the weekend could bring some chilly nights in part of the state.

In Eastern Tennessee, day time temperatures will remain in the 60’s the rest of the week, dipping down into the 50’s on Sunday and then back up into the 70’s next week. The low’s will mostly remain in the 40’s, but pay special attention to low temperatures on Thursday night and over the weekend. Similar temperatures can be expected around Nashville and in West Tennessee.

The Plateau should see cooler nights and be on frost alert on Thursday and the weekend.

Remember, the average last frost dates are (1998 data):
- Memphis → April 2
- Jackson → April 14
- Milan → April 19
- Springfield → April 27
- Murfreesboro → April 26
- Nashville → April 11
- Crossville → May 10
- Chattanooga → April 11
- Kingsport → May 17
- Knoxville → April 15
- Newport → May 2

Most of these dates are not yet behind us and the weather last week shows that these are only averages. Keep your eye on the weather!

On the Farm: Farmscaping

Farmscaping is an integrated approach to pest management that gets the beneficial organisms on the farm (insects, bats, and birds of prey) to work for you. Farmscaping can include a number of techniques for pest management, one of those is intercropping or strip cropping. For example, in a large scale farm trial in Lompoc, CA, pest break strips were planted between the vegetable crops. The pest strips served to both divert pests away from the vegetables (trap crop) and to provide a habitat to attract and rear beneficial insects (insectary crops), who in turn prey on the pests. These strips can add fertility and organic matter to the soil, when plowed under at the end of the season, too.

Managers made pest break strips 5-7 beds wide (80-inch bed width) at intervals of 350 feet across the farm. Several mixes of grasses, legumes and wildflowers were tested for effectiveness in supporting beneficial insects. The most effective mix was 60% alfalfa with 10% each of Dutch white, strawberry, berseem, and crimson clovers. The beneficial insects provided good control of the aphids and caterpillars. Leafhoppers and leaf miners preferred the alfalfa to the vegetables.

Adapted from ‘Farmscaping to Enhance Biological Control’ by Rex Dufour, ATTRA, 2000. For a more complete description of farmscaping, more examples like this one, and references, go to: http://attra.ncat.org/attra-pub/PDF/farmscaping.pdf.
Crop Report

While it was fairly early in the season for the vegetable folks, the unseasonably warm March had Mother Nature playing tricks on us, and some had planted corn, bean and tomato crops. Several of you have reported loss of corn acreage due to our recent cold weather. Although it is still premature to estimate the toll on the vegetable industry in TN, we know that growers have suffered losses across the state.

Corn that had germinated, but not yet emerged from the soil will face developmental problems and uneven stands. The continued cool soil temperatures could stress young seedlings. Any emerged corn has most likely suffered severe above-ground tissue damage. The good news is corn is fairly tolerant to cold weather, as the growing point of young corn remains below the surface until the six collared leaf stage of development. This means that, while the above ground parts may be killed, if the growing point was below the ground, not at or near the soil surface, the plant may recover and grow out of the damage.

Before replanting, wait a few days to see if there is any new growth. If the growing point has not been damaged, a new leaf should emerge in 3-4 days. Still, the cold snap we experienced was prolonged and severe in several areas. Frost prevention is the best form of protection, but can be nearly impossible with prolonged cold weather and large acreages.

For information on frost and freeze protection visit: http://edis.ifas.ufl.edu/BODY_HS168

The long-day varieties, such as Buffalo, Juno and Sweet Sandwich, are usually more pungent than the short-day types and store better. The short-day types have higher water content and less solid fiber, meaning that they do not store well and should be eaten fresh. Short-day varieties include Granex 33, Yellow Granex (aka. Vidalia in Georgia), Texas Early Grano 502 and Texas Grano 1015Y. Popular intermediate varieties include Sweet Red and Cimarron.

Regardless of type, onions should be harvested when the neck is soft and limber, not stiff. Onions should be undercut, being careful not to damage the bulb. Onions can be cured in the field, if there is no threat of inclement weather, or cured artificially with air up to 100°F at a low flow. Curing helps to heal the harvest wound and prevent diseases in storage.

Question of the Week

Q: What types and varieties of onion should I grow in TN and how do I store them to last throughout the winter? -L.H.

A: There are three types of onions: short-day, long-day and intermediate. TN is somewhat between the short-day and long day regions, making the intermediate type a good choice. All types have their advantages. The short-day are so called as they bulb when the day length is between 10-12 hrs, while the intermediate require 12-14 hrs and the long-day require 14-16 hrs of day length for bulbing. The short-day types are often recommended in the South, as many areas do not experience day length long enough to trigger bulbing for long-day types. The intermediate-day types are ideal for the zone between the north and the south, but are well-adapted for almost all growing areas in the U.S.