THE STRAW BERRY GROWER

A Short Season Wraps Up

By E. Barclay Poling, NCSU Extension Strawberry Specialist

The strawberry season ended quite early for many growers in the Carolinas and Virginia. In eastern sections of the state and the Sandhills, the 2002 strawberry ended 2-3 weeks early and is a season that most growers in these regions (and their agents) would probably like to forget! Agent Mike Wilder, Nash County (eastern NC), wrote on May 16, "The crop is shutting down after what I believe was a heat-induced overload of berries 1-1/2 to 2 weeks ago as well as new bloom destruction. You can almost hear the screeching as the brakes have been slammed. In some fields you can see the "blood" dripping down the plastic from a crop that is quickly dying and from fruit that never was picked. Two growers have indicated to me that they will reduce acreage next year, but it's early, minds have changed before."

The crop did better in areas where it was not quite so far along during the terrible heat wave of April 17–20. For example, in one of the Northern Piedmont counties (Rockingham), Extension Agent Kathryn Holmes reported on May 29, "We are having such a GREAT strawberry year in Rockingham County... I have growers expanding and many more interested!"

Flavor issues: As Rett Davis, Extension Director for Alamance County, wrote on May 6: "Consumers (my wife too) are complaining about this year's crop having very little storage life. They are soft and the quality rapidly deteriorates in a day. Not only are the flavors off but they will not keep in the refrigerator. This is being reported by Ricky Williams in Caswell, too. The only commonality is that they all have been sprayed with Quadris. Could Quadris be implicated in this problem? Any other culprits?"

On poor flavor and shelf-life questions, I think that whenever the ripening period is so abruptly shortened by heat, flavor suffers. This is a lesson that has been learned by veteran blueberry growers in

In Memoriam Bill Mabe

William "Bill" Glidewell Mabe, 71, died Wednesday May 28 at Forsyth Medical Center. Retired farmer and the owner of Mabe's Strawberries, he was was known as "Strawberry Bill" and proud of the title. Bill raised strawberries for 34 years. He was one of the first growers in the Piedmont, along with his friend D. L. Tuttle, to switch to plasticulture, about 12 years ago.

Bill Mabe was president of the North Carolina Strawberry Association in the early 1980s. He helped start the association in its first incarnation as the North Carolina Roadside Market and Pick-Your-Own Association and then was instrumental in getting the organization to make a name change to the NC Strawberry Association, Inc. and helping the organization get "commodity status."

Bill's son-in-law, Mike Rogers, who with his wife, Christy, and other family members has continued to operate Mabe's Strawberry Farm in Walnut Cove when Bill retired, says the family has received an outpouring of support and sympathy from their customers.

Funeral services were held on Friday, May 31 at Palmyra United Methodist Church. Our association sent flowers and several members attended. Memorials may be made to the W. G. Mabe Memorial Fund, c/o Palmyra United Methodist Church.

Eastern NC – seasons of excess heat greatly reduce blueberry flavor and keeping quality. Regrettably, some of the best weather for berry flavor did not come until the final few weeks in May! Just before the warm Memorial Weekend, we had exceptional weather for high berry quality and good keeping characteristics (beauti-

fully sunny days and cool nights). The conditions were "just perfect" for strawberry flavor and for motivating people to get out and pick strawberries!

Too many fruit: Many of the problems this season were also related to many too many blossoms and fruits coming in all at once. The high numbers of blossoms and crowns were directly related to excessive floral development that came about because of balmy days in December, 2001. Many growers were reporting up to 8 crowns per plant this season – the best growers want only 4–5 crowns. The ideal fruit load is around 35–50 fruits per plant, not 75–100!

Learning from these experiences: After such a heartbreaking crop, strawberry growers have a lot of thinking to do and hard decisions to make. Should I change my planting dates to a later window to avoid excess crowns? Should I stagger my planting dates in case it's a cold fall like 2000? How much acreage should I possibly cut back? (This year many growers could have gotten by with half of the acreage they actually planted.) What variety mix is best? (Sweet Charlie was a remarkable success story for many growers in 2002.) What can be done to cut some costs? Do I eliminate row covers? (Charlie O'Dell and I have a lot to say on this subject.) It also seems that costs just keep going up and up, particularly for mite and disease control chemicals, and the preplant fumigant, methyl bromide. Where can I make some cuts in my budget?

We'll review the season and consider these questions at the Summer Preplant Meetings across the state in July and August. I hope to see you there.

See the schedule of meetings listed on page 2.

Visit the Berry Agent website at (http://intra.ces.ncsu.edu/depts/hort/berrydoc/) for all the Advisories Dr. Poling sent out this season. To subscribe to the email advisories: send an email to

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Getting 'Specific' with Compost

Ron Alexander

In 1994, the U.S. Composting Council (USCC) began efforts to assist end users in defining and evaluating composts-for specific applications. The initial work created a series of 'Suggested Compost Parameters' (a list of compost characteristics that should be tested for by composters in order to allow their customers to properly choose the product they require). The table to right outlines these characteristics, as well as the reason why they are relevant to compost end users.

Recommended test methods for all proposed parameters may be found in the Composting Council's Recommended Test Methods for the Examination of Compost and Composting.

Following this work, various Compost Use Guidelines were developed which both define actual product specifications and outline end-use instructions for a series of primarily ornamental end uses (e.g. turf and garden bed establishment, etc.) for compost.

Table 1. Parameters for Evaluation of Composts

Compost Parameters*	Rationale for Inclusion:	
рH	Necessary for system management, effect on pH adjustment.	
Soluble Salt Concentration	Necessary for system management, potentially toxicity, effect on watering regime, effect on fertilizer application rates.	
Nutrient Content (N-P-K, Ca, Mg)	Necessary for system management, effect on fertilizer requirements.	
Water Holding Capacity	Necessary for system management, effect on watering regime.	
Bulk Density (lbs/yd ³)	Product handling and transportation issues, estimation/conversion of application rates.	
Moisture Content	Product handling and transportation issue.	
Organic Matter Content	Necessary for system management, relevant in determining application rates. Some use as a basis to measure cost effectiveness.	
Particle Size	Necessary for system management, effect on porosity. May determine usability in specific applications.	
Trace Elements /Heavy Metals	Necessary for system management, effect on fertilizer requirements, potential toxicity. Necessary to address and reduce public concern.	
Stability	Necessary for system management, effect on nutrient availability (nitrogen), odor generation.	
Growth Screening	Necessary for system management, effect on seed germination/plant growth.	

These technical documents were later developed into the *Field Guide to Compost Use*, published by the USCC. Last year, through grant funding provided through the North Carolina Department of Environment and Natural Resources/Division of Pollution Prevention & Environmental Assistances' Organic Wastes Recycling Grants, addi-

tional compost use guidelines were developed for agricultural crops with importance to North Carolina. This work was completed within the 'North Carolina Compost Promotional Initiative', managed by R. Alexander Associates, Inc. The new compost use guidelines include those for the cultivation of cotton, bell peppers, tomatoes,

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426 Jerry Lane, Check, Va. 24072 Email:7springs@swva.net www.7springsfarm.com and strawberries. The Guidelines themselves include information on the appropriate compost characteristics (see the strawberry example to right), application methods and rates, guidelines for use of related materials, etc.

Application Method

Compost may be applied using a tradi-tional manure spreader (flail/rear discharge or side discharge) or other specialized equipment. Compost is typically applied throughout an entire field, but may also be applied only in the rows where the crop is to be grown. Lower application rates from approximately 5–15 tons/acre of compost are typically used on conventionally grown and 8–20 tons/acre on organically grown

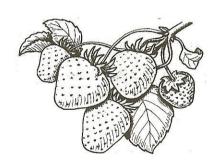
strawberries. Directed applications of compost, within the area of the field to be bedded, can reduce the application rate in half. Lower rates of compost are typically being used as 'maintenance' applications as a nutrient supplement or media for microbial growth and humus formation. Higher application rates of 10–20 tons (wet) and higher are used to modify soil physical properties and a primary nutrient source in short-terms. The product should be uni-

Table 2. Strawberry Compost Use Guidelines: Preferred Compost Parameters

Parameters	Reported as (units of measure)	General Range
PH	pH units	5.0 - 8.0
Soluble Salt Content (electrical conductivity)	dS/m (mmhos/cm)	Maximum 5 (1 dS/m or less for soil blend)
Moisture Content	Percent (wet weight basis)	35 – 55
Organic Matter Content	Percent (dry weight basis)	30 – 65
Particle Size	Screen size (inch, centimeter, millimeter)	pass through 1/2" screen or smaller
Stability	Variety of parameters and units	Stable or highly stable
Maturity	Variety of parameters and units	Must pass growth-screening test
Physical Contaminants (inert)	Percent (dry weight basis)	< 1
Chemical Contaminants	mg/kg (ppm)	Meets US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 3 levels
Biological Contaminants Select Pathogens, Fecal Coliform Bacteria, or Salmonella	MPN per gram per dry weight MPN per 4 grams per dry weight	Meets US EPA Class A standard, 40 CFR § 503.32(a) levels

formly surface-applied, then incorporated to an approximate depth of 5–6 inches using a rototiller, disc or moldboard plow, or other tillage equipment. Existing soil conditions and compost characteristics will influence appropriate compost application rates. •

Ron Alexander is the President of R. Alexander Associates, Inc. located in Apex, NC. For copies of the compost use guidelines, contact CFSA's office or Scott Mouw of the NC DENR/DPPEA (919-515-6512).





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