



Georgia Extension Vegetable News

The University of Georgia

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Clarification on Recent Insecticide Section 18s and 24C

Stormy Sparks

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Reason Fungicide Labeled

David Langston

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Bayer has just been granted a federal registration for Reason® 500SC fungicide that should allow for its use in the 2005 season. The active ingredient for this fungicide is fenamidone and the mode of action is basically identical to that of strobilurin chemicals. The label calls for no more than one application of Reason before rotating to a chemistry with another mode of action.

Reason is labeled on potatoes, tomatoes, onions, cucurbits, and lettuce. Target pathogens are downy mildews, early and late blights, Septoria leaf spot, and Alternaria leaf spots. Replicated trials conducted in Tifton have demonstrated good efficacy with Reason on downy mildew of cucurbits.

In the past few months, Georgia has received two Section 18 registrations and a 24C registration for use of insecticides on vegetable crops. There has been some confusion as to what crops are covered by these registrations and the length of time each registration is in place.

The two section 18 requests were for the use of Avaunt on collards for control of diamondback moth larvae and for Knack on succulent beans for control of silverleaf whitefly. Both of these requests were originally granted as crisis exemptions by the Georgia Department of Agriculture, which allowed for immediate use. Crisis exemptions are typically in effect for 14 days, however, specific use exemptions were also requested for both of these products, which allowed for continued use.

The specific exemption was granted for Avaunt on November 4, 2004, and does not expire until November 3, 2005. The specific exemption for Knack has not been granted and is somewhat irrelevant at this point (from a use standpoint). Because whitefly is primarily a fall crop problem, the request was for the fall use season in 2004 only. If Knack does not receive a full federal label before next fall, we will have to request a renewal of the section 18.

A quick reminder - Section 18 registrations allow for use on the specified crop for the specified pest only.

Asana was granted a 24C registration. This type of registration closely resembles a full registration (Section 3) and allows for use against any pests on the specified crop. The Asana 24C label is for Turnip greens ONLY. Asana is already labeled on mustard and collard greens, but is not labeled on all greens (not labeled on Kale, etc.). The other big advantage of a 24C label is that there is not a specified expiration date.

Don't Get Trapped by the Recent Abrupt Vegetable Price

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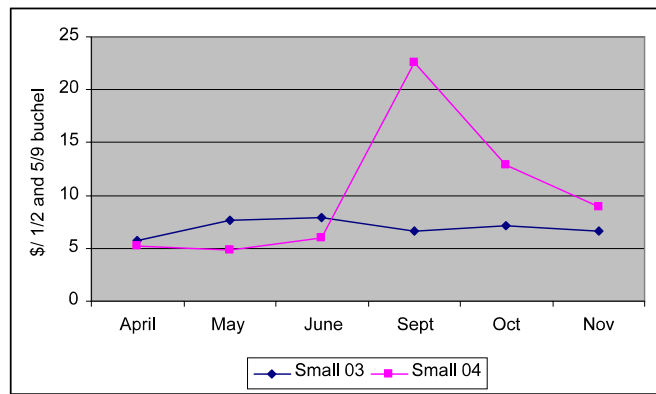
Introduction

The scarcity of both fruits and vegetables caused by hurricanes Charley, Frances, Jeanne and Ivan and the tropical storm that flooded most South Georgia fall crops is the culprit of the sudden astronomical jump in prices of some fruits and vegetables. The vegetable crops that suffered the most were pepper, squash, cucumbers, eggplants, sweet corn and snap beans (Minor, 2004; Omahen, 2004).

Zucchini Prices

Let's analyze the price trend of small zucchini. Fig 1 shows that 2003 spring crop commanded better prices than fall crop. In 2004, the take off prices from April to June (Spring) were initially lower than the same time period in 2003. However, an unexpected price jump raised September price (beginning of fall season) to \$22.61 per 1/2 and 5/9 bushel compared only \$6.57 during the same time period in 2003 (Fig. 1).

Fig. 1: Small Zucchini Price Trend: 2003 - 2004

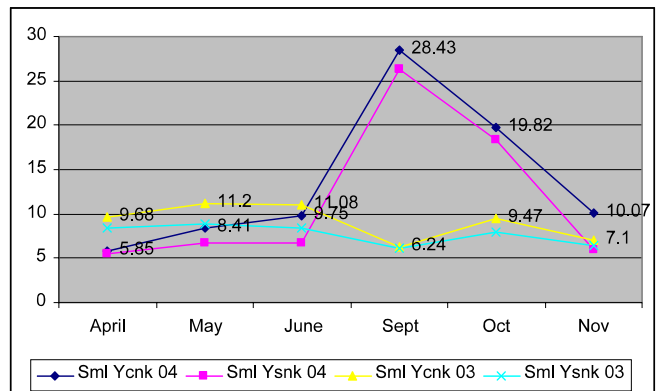


Source: 2004 Sales F.O.B. Shipping Point and Delivered Sales Shipping Point Basis, Thomasville – South Georgia.

Squash Prices

In 2003 spring season, small yellow crook-neck squash and small yellow straight-neck squash prices per 1/2 or 5/9 bushel were relatively higher than in 2004. Furthermore, spring prices were much better than fall prices (September to November). However, there was a drastic change in 2004 fall prices for both commodities (Fig 2).

Figure 2: Georgia Squash Prices: F.O.B. Shipping Point: 2003-2004



Source: 2004 Sales F.O.B. Shipping Point and Delivered Sales Shipping Point Basis, Thomasville – South Georgia.

The small yellow crookneck squash prices started as high as \$28.4 in September and dropped to \$10.07 in November. On the other hand, the small yellow straight-neck squash prices also started as high as \$26.43 and down trended to \$5.95 in November. The starting prices were over four times that of 2003. A similar trend was observed for the other fall vegetables such as pepper, tomatoes, cucumbers etc.

What to Watch Out For

This extremely high price trend is temporal. It will not last. It happened simply because of the shortage caused by several hurricanes and tropical storm. Growers should be careful and cautious about spring crop production. Some will be tempted to increase planted acreages. If excess production occurs vegetable prices for the spring season will be dampened. So before increasing your production acreages, consult with your County Agents who might know who else is increasing his acreages and the like.

Reference

1. Minor, E., (E.G. Fonsah, contributing author) (2004), "Expert says storm will mean erratic vegetable supplies and prices". Associated Press: <http://www.ledger-enquirer.com/mld/ledgerenquirer/news/politics/9892874.htm>
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3. Thomasville, South Georgia (2004) "Sales F.O.B. Vegetable Shipping Point and Delivered Sales Shipping Point Basis". USDA/AMS, Federal-State Market News: www.ams.usda.gov/marketnews.htm
4. Omahen, S. (E.G. Fonsah, contributing author) (2004) "Storm Uproots trees, downs limbs across state". Georgia Faces: The University of Georgia, College of Agricultural and Environmental Science, September 10. pp. 1-3

<http://georgiafaces.caes.uga.edu/storypage.cfm?storyid=2329>

Equipment Modifications for Migrating from Methyl Bromide

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Alternative fumigant materials to methyl bromide consist of Telone II, Telone C-17, Telone C-35, chloropicrin, methyl iodine and metam sodium. Tests have shown acceptable results with these materials by either applying as a pre-bed, broadcast and in-bed treatments.

Metam sodium can be applied with a standard boom sprayer set-up and incorporated into the soil to 4-6 inches. Metam sodium can be sprayed on top of the bed and incorporated with a rototiller. Success has been achieved by using 12 inch coulters to inject the material into the soil. The surface of the soil should be sealed by smoothing the surface to reduce volatilization.

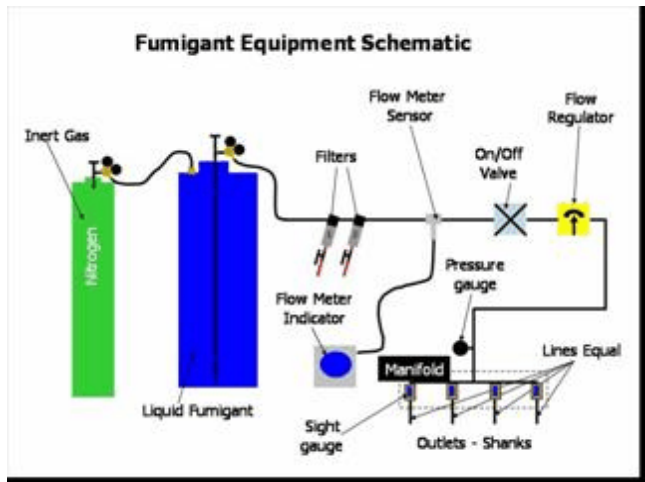
Pre-bed and broadcast application of Telone II and C-35 should be placed at depth of 12 inches. Application equipment can be either ripper shanks or large coulters (30 inch diameter) spaced 10 to 12 inches with the ability to seal the opening (Figure 1).



In-bed application of Telone C-35 or methyl iodide or chloropicrin can be applied in a similar manner as methyl bromide. Shanks should be

spaced 10 to 12 inches apart at a depth of 6-8 inches in the bed. If methyl bromide equipment is to be used to apply these fumigants some modifications should be conducted to ensure uniform application of the fumigant to achieve maximum benefit. Telone products, methyl iodine and chloropicrin are applied by pressurized systems. Figure 2 is a schematic of a pressurized fumigation system.

Figure 1. Schematic of a pressurized fumigant system.



An inert pressurized gas (nitrogen) is connected to the fumigant tank to force the material to the manifold for distribution. A gas regulator is used to maintain a uniform pressure in the system. To ensure accurate application, the fumigant must be under enough pressure to maintain a liquid state in the tank, pressure lines, manifold, and metering devices. The pressure at the manifold should be greater than 10 psi. A pressure gage must be placed at the manifold. This will make up for any pressure loss in the lines from the gas regulator to the manifold.

Tubing- Lines from the manifold to the shanks should be uniform in length and in size to insure uniform application of materials. If converting a methyl bromide applicator, change the tubing from the manifold to the tip of the shanks. Normally application rates are roughly one third that of methyl bromide. Therefore inside diameter of the new tubing should be at least ½ the diameter of the old to maintain the same velocity exiting the tubing.

Flow Meter – Meters used to measure the amount of fumigant being applied can be mechanical or electronic. Mechanical meters normally give an indication of percent of maximum flow through the meter. Electronic meters can measure fumigant flow, total applied, acres, and etc. Both systems require a factor to convert from water to the particular fumigant.

Table 2. List properties of common fumigants.

Material	Density (lbs/gal)	Specific Gravity	Conversion Factor
MB 98%	14.4	1.732	0.760
MB 67%	14.2	1.702	0.763
Chloropicrin	14.1	1.692	0.769
Telone II	10.2	1.218	0.906
Telone C-17	10.6	1.270	0.887
Telone C-35	11.2	1.340	0.864
Methyl Iodine 98%	19.0	2.277	0.663
Methyl Iodine 50%	16.75	2.010	0.705
Water	8.345	1.000	1.000

Some materials may have a violent reaction when coming in contact with a particular soil fumigant. *Read the label to ensure the construction of the application equipment being used is compatible.* Listed are materials compatible and not compatible with fumigants.

- COMPATIBLE: HD polyethylene, nylon, Teflon, Viton, stainless steel, and cross-linked polyethylene.
- NOT COMPATIBLE: polypropylene, rubber, plastic, aluminum, magnesium, zinc, cadmium, galvanized steel, fiberglass, EPDM, Nuna-N, neoprene and PVC.
- Mild steel, iron, brass and copper are not compatible or corrosive with chloropicrin and metam sodium. *Read the label.*

All fumigants should be applied according to the label. Make sure that the proper safety equipment is used such as coveralls, respirator, gloves and etc.

Critical Use Exemption for Methyl Bromide Approved for 2006, Allocation Rules Posted for 2005

William Terry Kelley
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The Environmental Protection Agency (EPA) has finally posted its ruling on how methyl bromide will be allocated and distributed in 2005. The good news is that it will be distributed in a manner that is consistent with currently used protocols. It will be distributed much like quarantine pre-shipment (QPS) allocations have been distributed. The bad news is that existing stocks will fall under the critical use exemption (CUE) rules. This means that stockpiles of methyl bromide still must be used for critical uses which received exemptions.

Methyl bromide will be available to growers that belong to a consortium that submitted a successful CUE application for critical use exemption (which includes Georgia growers) and that have a need that is considered a critical use. Growers can get methyl bromide through the normal distribution chains by certifying that they are in the group that received the CUE, will be using the product in an approved area and that they have a need (limiting critical condition) that is approved under the CUE. The certification will be done at the purchase point.

The critical uses that were approved for Georgia include uses on cucumber, squash, cantaloupe, eggplant, pepper and tomato. These uses were approved primarily for areas where nutsedge is a problem. The grower must certify that there is a reasonable expectation that nutsedge (or the approved critical condition) will be a problem in those areas where the methyl bromide will be used. The distribution will be on a universal cap basis which means that the uses will not be capped by sector (crop or industry) but as a whole for pre-plant uses.

The Meeting of the Parties to the Montreal Protocol Treaty concluded a week-long session in Prague, Czech Republic on November 26, 2004. The parties amended the approval of quantities of methyl bromide previously awarded

to applicants for 2005 and reached a preliminary agreement on quantities to be allowed to applicants for 2006.

The nations involved continue to be at odds as to how much MBr can be granted for Critical Use Exemption. The European Union nations continue to argue for lower levels of exemption while the United States, Australia, New Zealand and Canada are pushing for higher amounts. The concern among the latter group is that the Methyl Bromide Technical Options Committee (MBTOC) is trying to make policy decisions rather than conducting technical reviews. In other words, MBTOC is not using science and statistics on which to base decisions.

The U.S. application for critical use in 2005 totaled 42% of the 1991 levels of MBr. The final amount approved for use in 2005 was just over 37% of the 1991 baseline. The actual allowance calls for 30% production and the remaining 7% to be taken from existing stocks.

For 2006, the EPA had nominated a figure of about 37% of the 1991 baseline. Ultimately, the U.S. conceded in Prague to a figure of 27% of the baseline. They will have an opportunity in March to request an additional 8.6% as a supplemental allocation. However, the possibility that the supplemental request will be approved seems remote at this point. Also, the amount approved by MBTOC only included a portion of what EPA nominated for pepper, tomato and eggplant. It did include everything asked for in cantaloupe, cucumber and squash. However, since the EPA ruling on allocation and distribution is not sector specific, this is not a critical point at this time.

There is currently no alternative to MBr that is technically or economically feasible for Georgia producers to use where nutsedge is a problem. It is estimated that the loss of methyl bromide for use by Georgia vegetable growers would result in \$120 million in lost production. That is roughly 20% of the entire Georgia vegetable industry.

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Wide Web at www.ugaveg.org

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information on all information contained in the
above newsletter articles.**

County Extension Agent _____