

Featured Article - Fall 2003

Collards May Replace Methyl Bromide

Scientists at the University of Georgia are developing a system that uses plants like collards, mustard and turnips to replace a soon-to-be-banned farm fumigant, methyl bromide. For the past half century it's been the primary soil fumigant used by strawberry, vegetable and nursery growers worldwide, effectively killing soil pathogens, nematodes, weeds and other pests in the fumigated fields, but also killing the beneficial organisms vital to healthy soil.

The United States uses about 21,000 tons of methyl bromide annually, mostly for agricultural purposes. Some years back more than 160 nations signed the Montreal Protocol, an international treaty to control the production and trade of ozone-depleting substances. It was slated to be completely phased out of production and use by the end of next year. Recently growers got a critical-use exemption to use methyl bromide through 2005.

Natural fumigant

According to an October 30 news release from Brad Haire, University of Georgia, "Seebold and a team of CAES scientists are trying to develop a management strategy that will use a natural fumigant found in brassica crops – collards and their cousins," supported by a \$422,000 grant from the U.S. Department of Agriculture.

Brassica crops contain compounds called glucosinolates. When these compounds break down in soil, Seebold said, they release isothiocyanates, which can kill soil pests in much the same way methyl bromide does.

This natural fumigation quality of the brassica family has been known for years, Seebold said. But no viable way has been developed to use it economically on a vegetable farm.

Over the next three years, Seebold and his team will grow local and exotic brassica crops and monitor the fumigation potential of each. Because brassicas are generally lower-value crops, farmers don't fumigate beds before planting them.

The scientists will work out a system that might allow a farmer to grow these crops specifically to till back into the ground to break down and fumigate the soil in preparation for higher-value crops... The farmer could harvest part of his brassica crop for market and till in the rest to use as a fumigant, he said.

"The most important thing for any alternative to methyl bromide is to be economically viable for the farmer," he said.

For more information, log on to <http://georgiafaces.caes.uga.edu/storypage.cfm?storyid=2024>

See also past issues of Northland Berry News for other possible alternatives. It has been our contention that "where there is a will, there is a way," or at least, a way can be found. If we can send a man to the moon, we can probably find an ecologically sound, economically sustainable way of growing vegetables, berries and nursery stock without endangering the very life we are supposedly trying to sustain with the vegeta-

bles and berries we are producing through the use of methyl bromide or other toxic rescue chemicals.

Can Compost Replace Methyl Bromide? YES! by Elaine Ingham, Microbiologist, president of Soil Foodweb, Inc. – Vol. 13, No. 1, Spring 1999.

The Probiotic Alternative to Methyl Bromide Soil Fumigation in Strawberry Production by D. M. Fulks, Belvidere Plantation, Fredericksburg, VA. – Vol. 10, No. 4, December 1996.

An Ecological Alternative to Methyl Bromide by Paul M. Otten – Vol. 9, No. 4, December 1995.

SUBSCRIPTION ORDER FORM

US currency only, drawn on US bank or charge card

- | | | |
|---------|----------------------------------|------|
| In USA | <input type="checkbox"/> 2 years | \$35 |
| | <input type="checkbox"/> 1 year | \$20 |
| Canada | <input type="checkbox"/> 2 years | \$45 |
| | <input type="checkbox"/> 1 year | \$25 |
| Foreign | <input type="checkbox"/> 2 years | \$55 |
| | <input type="checkbox"/> 1 year | \$30 |

AND Send me the complete set of 1987-2002 issues for only \$129 (Canada \$149, Foreign \$159).

Send me the last 5 years for only \$70 (Canada \$75, Foreign \$85)

Send me the last 2 years for only \$30 (Canada \$35, Foreign \$40)

Check Enclosed # _____

Or charge to VISA, MasterCard

Exp. _____ / _____

CARD HOLDER'S SIGNATURE _____

Order online @ www.berrynews.com

Cardholder's Name _____

Business _____

Address _____

City _____

State _____ Zip _____ - _____

Phone _____

Check all berry crops you grow:

- | | |
|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Blackberries | <input type="checkbox"/> Blueberries |
| <input type="checkbox"/> Currants | <input type="checkbox"/> Gooseberries |
| <input type="checkbox"/> Raspberries | <input type="checkbox"/> Strawberries |

NORTHLAND BERRY NEWS

595 Grand Avenue

Saint Paul MN 55102-3674 USA

Phone 651-225-8888 • Fax 651-292-9699

www.berrynews.com

Form: FTR_FALL03_2