Subject: Docket ID Number OPP-2005-0123
September 14, 2005

Comments in Response to *Methyl Bromide Risk Assessment for Fumigant Pesticide; Notice of Availability*

Information provided by:
College of Tropical Agriculture and Human Resources, Cooperative Extension Service:
   Plant Pathologist and Agricultural Extension Agent; and
an Agricultural Chemical Distributor Representative.

Fumigant product: **Methyl Bromide (Terr-O-Gas)**

1. Crop. **Ginger (Zingiber officinale Roscoe).**

2. Fumigant use. **Methyl Bromide (Terr-O-Gas).**

3. Average acres grown per enterprise. **Estimated 3 acres per enterprise for years 2003-2004.**

4. Maximum acres fumigated per day. **20 acres.**

5. Percent of the acres grown that are fumigated. **13%.**

6. Typical application rate (lb a.i./acre). **367.5 lbs/acre.**

7. Minimum application rate used (lb a.i./acre)(for high pest pressure situations). **367.5 lbs/acre.**

8. Time of year that soil is fumigated. **March – June.**

9. Fumigation cycle (every crop cycle, 1 time/year, 1 time/2 years). **Once per year.**

10. Target pests (by category or specific pests). **Root Knot Nematodes, Weeds, Soil diseases, Fusarium, Pink Rot.**

11. Method of application (e.g., chemigation, soil injection, specific equipment used, etc.). **Metered – raised tarp method.**

12. Methods or actions taken to reduce emissions (polyethylene tarps or soil cap). **4-6 mil polyethylene tarp.**

13. Could high-density polyethylene (HDPE) or high barrier tarps be used on this crop? **Yes.**

14. Time between treatment and next production activity (e.g., time until planting). **3-7 days.**

15. Typical crops following the fumigated crop (only if they benefit from the fumigation). **Taro.**
16. Regulatory restrictions in your area on this fumigant or an alternative fumigant (such as weather restrictions). “Do not contaminate water…”

17. Soil restrictions on this fumigant or an alternative fumigant. 50% moisture capacity, soil temperature 60-80°F, loam or clay loam soil.

18. Any restrictions or concerns about minimum soil temperature, hilly terrain, etc. No.

19. Best available alternative (another fumigant or strategy such as leaving land fallow, etc.). Fallow, crop rotation, move to new field.

20. Could the use of different soil fumigants be alternated (e.g., metam sodium followed by 1,3-D)? Specify how. Yes, alternate products are being evaluated. Farmers move fields every year.

21. Yield or quality impacts that are likely to result from moving to the best available alternative (i.e., change in commodity price or grade). Up to 40% short term loss, long-term could lead to death of the industry.

22. Would moving to the next best alternative impact key market windows? How? Yes, harvest early, buy quality would be lower and price would be lower so buyers will go to foreign markets.

23. Cost per acre of active ingredient. $2200/acre (estimated).

24. Cost per acre of other fumigation inputs (e.g., tarps and equipment). $1000/acre – tarp cost


26. Do you know of any other contacts or other sources of information for this crop that could provide information on acreage, prices, pests, etc.? DOA statistics, Cooperative Extension Service, UH CTAHR Research & Extension publications on diseases and pests.

27. Are there non-chemical alternatives that can be used in place of fumigants? Describe use. Yes: bag culture for clean seed production, crop rotation, fallow.

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