Top 10 Things to Know about Methyl Bromide: A Raspberry Nursery Survey

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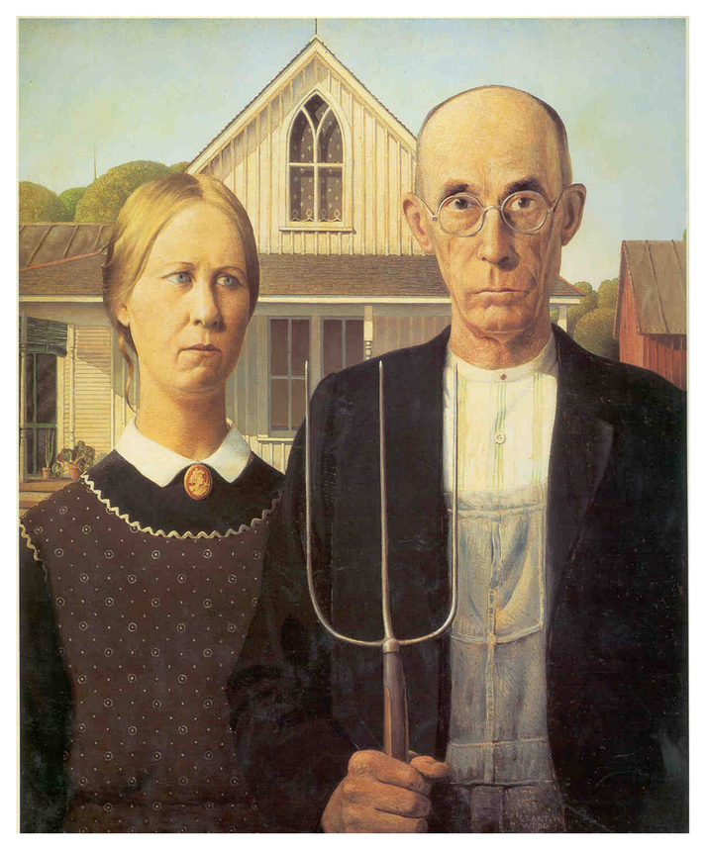
Survey Design

Raspberry nurseries rely upon soil fumigation with methyl bromide (MB) to avoid problems with soil borne pathogens and weeds. Raspberry nurseries qualified for a Critical Use Exemption for MB through 2010. This has been discontinued, and pressure is building for nurseries to adopt alternatives. As part of a larger project to develop and demonstrate MB alternatives for raspberry nurseries, we developed a survey to assess the knowledge, attitudes and beliefs of raspberry nursery operators concerning MB and alternative fumigants. We also asked nurseries which sources of information they value the most, and questioned them about their priorities for future research.

The survey was administered July-August 2010. An email notification was sent to representatives of each of the six major commercial US raspberry nurseries, along with a link to the web-based survey. To assess their knowledge about MB and alternatives, respondents were asked to rate a series of statements on a 1-5 scale, with 1=strongly agree and 5=strongly disagree. Non-respondents received an email reminder two weeks after the initial notification, and weekly telephone reminders thereafter. All six of the nurseries contributed at least one response; four of these were via the web-based survey, and the remaining two were administered over the telephone. The top ten results are below:

Results



10. The average raspberry nursery operator in the United States is a middle aged Caucasian with a bachelor's degree. Respondents were well-educated (50% had bachelors' degrees, another 33% had a graduate degree), middle-aged (all between 30 and 60) and predominantly (83%) Caucasian.

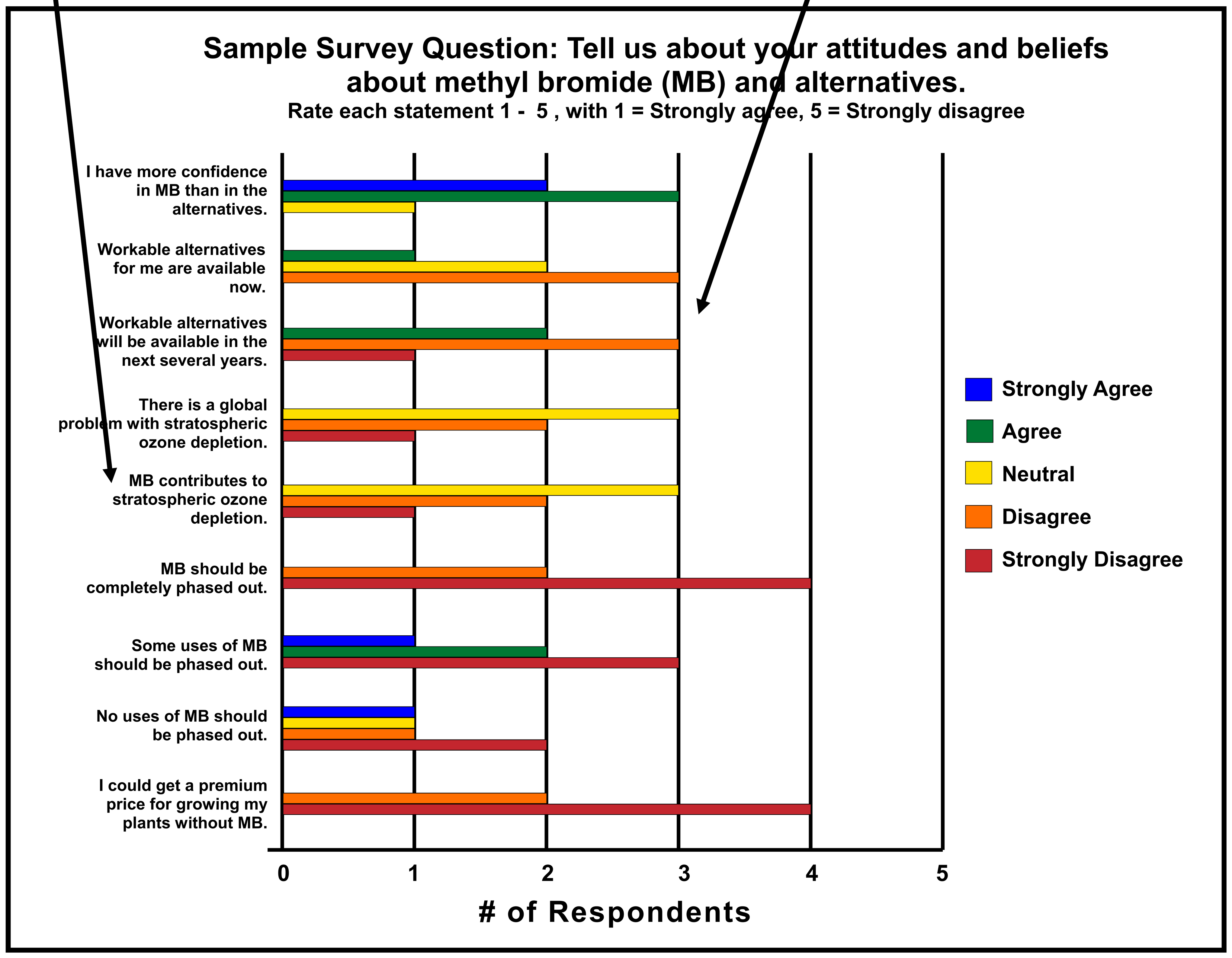
9. The more educated respondents get their information from more sources. Respondents with more education indicated a broader range of influential sources.

8. They are receptive to electronic communication, like webinars, email and websites but also like workshops and personal visits. Respondents were highly receptive to electronic communication, with 100% indicating that they liked to receive email updates. 83% were receptive to webinars or to face-to-face workshops.

7. Custom fumigators are the most influential source of information. Nurseries indicated that the most important and influential sources of information were (in order of their impact): custom fumigators, fumigant registrants, other growers, university/ USDA researchers, EPA, and local extension.

6. On-farm trials are more important than trials on research stations. The highest priority activity for the nursery operators were economic analysis of alternatives, followed by fumigation trials in commercial nurseries. Fumigant trials conducted on research stations and long-term (typically non-chemical) trials were lower priorities.

5. Nursery operators do not believe that MB depletes the ozone layer. None of the respondents agreed that there is a problem with global stratospheric ozone depletion, and none agreed that MB contributes significantly to ozone depletion. However 50% of the respondents were neutral on these topics.

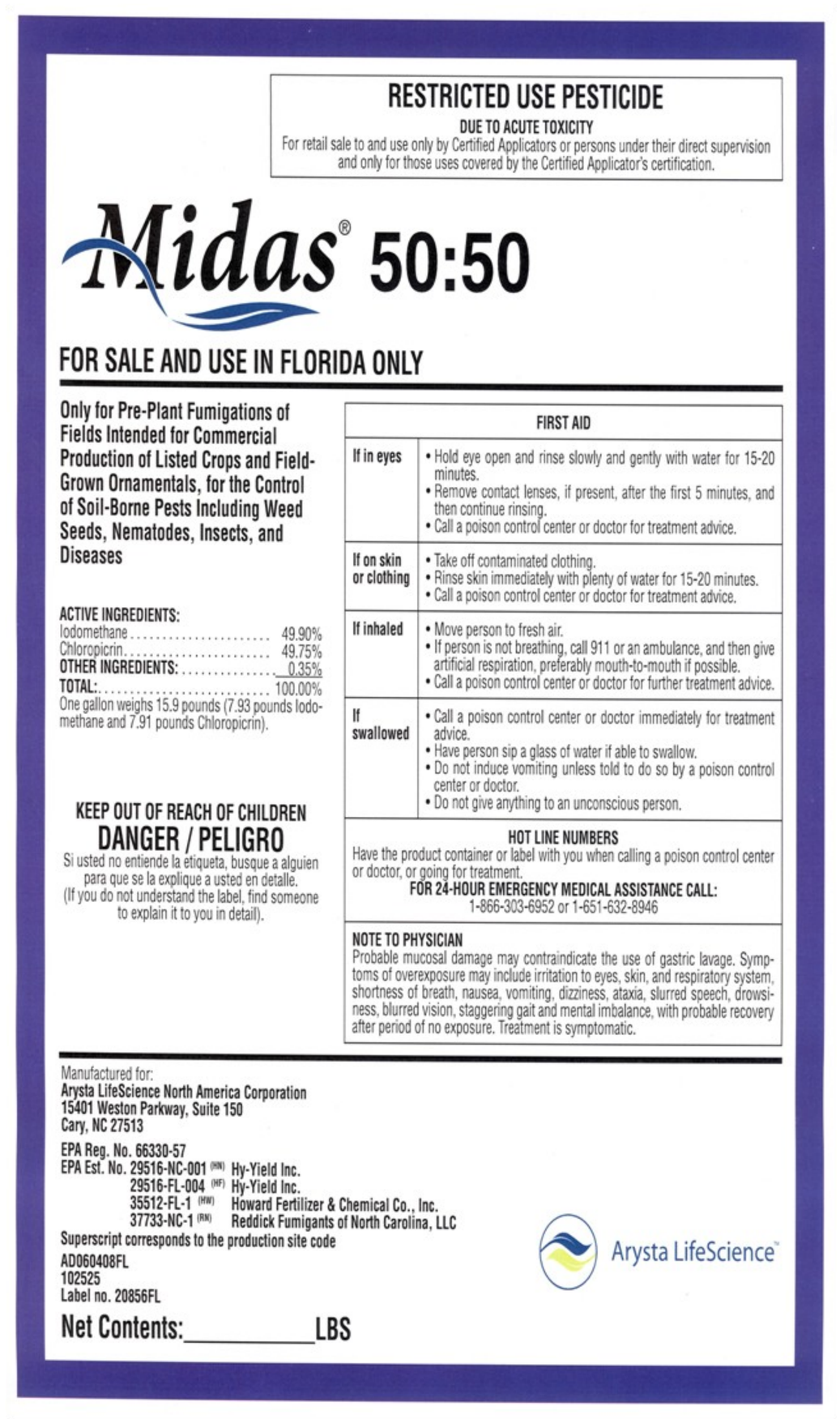


4. Very few have adopted an MB alternative, although many are interested in trying alternatives. Only 17% indicated that they had already adopted an alternative on a substantial portion of their acreage, but 67% were ready to test alternatives in their nurseries.

3. They do not see alternatives available now and are split on whether they will be available in the near future. 67% of the respondents did not think workable alternatives will be available within the next several years. Most of the respondents agreed that they had learned about MB alternatives within the past three years, but they were divided on whether that information would help them choose an alternative.

2. They have more confidence in MB than alternatives. Respondents (83%) were more confident in MB than in the alternatives. Half of the respondents thought alternatives would work for some portion of their acreage.

1. Their favorite alternative (300 lb/A MIDAS 50:50) will not be available to them. Operators indicating that an alternative would work for them all thought that 300 lb/ acre MIDAS 50:50 would be effective. However, this treatment will not be allowed in Washington or California, the two states in which raspberry nursery production is concentrated.



Conclusion

Research and Extension personnel should focus on economic analysis and on-site trials if they want to convince raspberry nurseries to adopt alternatives. These efforts could build nurseries' confidence in alternatives, which is presently low. They should work closely with custom fumigators, the most influential source of information for nursery operators. Nursery operators are receptive to electronic communication. Most nursery operators don't believe that fumigation with Methyl Bromide causes substantial ozone depletion, so it will take significant monetary, regulatory or other motivations before they change this practice.