PERFORMANCE OF MIDAS ® 50:50 IN THE SOUTHEASTERN US

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During the 2004 -2005 crop season, Arysta LifeScience North America evaluated MIDAS 50:50 in the major crop growing regions of Florida, Georgia, and North Carolina.. Studies were conducted on vegetable farms in major vegetable production areas in the Eastern United States, from Homestead, FL. to Clinton, NC. Each test was limited to a single block of approx. ½ acre in size and brought to commercial harvest where the crop was then destroyed to meet regulatory requirements.

Trial objectives were to evaluate the following:

1. Overall performance of MIDAS in commercial fields and in various farm management situations.
2. Performance of MIDAS in different soil and climatic conditions.
3. Application of MIDAS through various types of commercial application equipment.

Trial sites were applied with the grower's bed press and fumigant application equipment. Tests were not replicated, for the purpose of evaluating large scale use comparison to the grower standard. MIDAS was evaluated under typical conditions encountered on farms such as various soil types, multiple soil moisture levels, moderate to severe weed pressure, and moderate to severe disease pressure. MIDAS was applied adjacent to Methyl bromide at standard rates for each trial location.

These tests provided valuable insight into several factors that will be beneficial to growers in their consideration of MIDAS as a new soil fumigant, and likely alternative to methyl bromide. Furthermore an opportunity to make observations about the performance of MIDAS in a commercial setting concluded the following:

1. Small modifications will need to be made to grower's application equipment to insure an even distribution across the treatment area.
2. MIDAS performs better in soils with slightly lower soil moisture content than Methyl bromide.
3. Aeration of MIDAS in extremely wet conditions (saturated) may be delayed.
4. MIDAS under commercial conditions was essentially equivalent to methyl bromide for control of soil pathogens and weed seeds
5. Modifications to grower's equipment installed after the first test resulted in excellent consistency and uniform performance in the remaining 8 tests.

MIDAS was shown to bridge the learning process necessary to provide growers with an alternative choice for broad spectrum control of pests and disease in commercial fields. MIDAS offers flexibility to the grower being applied with various tractor mounted shank equipment with minimal modifications necessary. MIDAS provided consistency

of hard to control pest problems like nutsedge, and Phytophthora root rot; Growers can also expect equivalent plant vigor and yields compared to methyl bromide; and MIDAS is applied at reduced rates and with conventional equipment including applications in drip fumigation.

MIDAS is a next generation soil fumigant and alternative to methyl bromide having many of the same benefits and use conditions required for successful use by growers. Optimum performance is achieved when the specific conditions for soil moisture, temperature and aeration timing are achieved that allows for maximize distribution in the treated area.

Table 1. Yield of tomatoes for fumigation treatments in Naples, FL (test number 2).

1. MIDAS 50:50 @ 300 pounds/acre w/ standard white plastic	59.8 bins/acre
2. MIDAS 50:50 @ 200 pounds/acre w/ VIF plastic (Bromostop)	56.3 bins/acre
3. Methyl bromide 67/33 @ 175 pounds/acre w/ VIF plastic (Bromostop)	50.8 bins/acre
4. Methyl bromide 67/33 @ 350 pounds/acre w/ standard white plastic	49.5 bins/acre