

5 minute talk- Savannah

**INFLUENCE OF MIDAS 50:50 AND MIDAS 98:2 ON
STRAWBERRY PLASTICULTURE YIELDS IN NORTH CAROLINA**

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INTRODUCTION

- At NC State University we have been investigating various iodomethane formulations and rates since the year 2000. In this 2008-2009 study at Central Crops Research Station in Clayton, NC (USDA hardiness Zone 7b, lat. 35°7' N, long. 78°5' E), we investigated the performance of Midas 50:50 (4 rates) compared to Midas 98:2 (5 rates), we also included 2 fumigant treatments with methyl bromide 50:50 for comparison to Midas. A VIF barrier film (Pliant Blockade) was used to increase the efficacy of fumigant.

Promising Results in 2007-2008

2008 Strawberry Trial - NC – Marketable Yields



Notes:
Yield data pooled over
three plant-back dates
VIF (Midas) and HDPE
Film (MB)
Broadcast applic.



Materials and Methods

- The broadcast rates for Midas 98:2 were 60, 70, 80, and 90 and 100 lb/A (30, 35, 40 and 45 lb/A in-the-bed, respectively).
- The broadcast rates of Midas 50:50 were 120 lb/A, 140 lb/A, and 160 lb/A.
- Methyl bromide/chloropicrin was evaluated at 175 and 240 lb/A broadcast.
- The treatments were shank applied with a Symmetry Unit, and this allowed us to achieve very accurate calibrations of both Midas 50:50 and Midas 98:2.

Challenge with Midas 98:2 is calibration

- Comparing average net volumes per acre with methyl bromide and Midas (50% bed treatment)
 - Methyl Bromide with VIF: 7 gallons
 - Midas 50:50 with VIF @ 160 lbs/A or 80 lbs in bed will require 5 gallons (15.9 lb/gal)
 - Midas 98:2 with VIF @ 80 lbs /A or 40 lbs in bed will require 2.1 gallons! (18.9 .b/gal)

Results from 2008-2009

Table 1. Marketable strawberry yield data (lbs/A), Clayton, NC (2008-2009)

Trt. No	Treatment	broadcast/A	Market Yd/A	Significance ¹
6	Midas 50:50	100	23390	a
2	Midas 98:2	70	22918	ab
7	Midas 50:50	120	22476	ab
3	Midas 98:2	80	22399	ab
5	Midas 98:2	100	22362	ab
4	Midas 98:2	90	22308	ab
1	Midas 98:2	60	21719	abc
9	Midas 50:50	160	21322	bcd
8	Midas 50:50	140	20138	cd
10	MeBr 50:50	175	19757	cde
11	MeBr 50:50	240	19476	de
12	UTC	none	18021	e

¹ Means with the same letter are not significantly different ($P < 0.01$)

Summary from 2008-2009

- A Specialized Unit was used to achieve precise calibrations of both Midas 50:50 and Midas 98:2 in 2008
- But, in 2009 we achieved very good precision using the Yellow Tubes (see Midas representative for set up): 50:50 use 5/64" inner dia. tubing and for 98:2 use the 1/16" tubing
- Prospects look very good for Midas 50:50 at lower rates of 100-120 lbs/A broadcast in Clayton, NC
- Important to continue evaluations of Midas 98:2