

Evaluation of Configure on Phytotoxicity and Branching of Hosta

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Materials and Methods

- **OBJECTIVE:** Evaluate three cultivars of *Hosta* for response to Configure, applied during active growth.
- **PLANT SPECIES:**
 - *Hosta* 'Liberty'
 - *Hosta sieboldiana* 'Great Expectations'
 - *Hosta sieboldiana* 'Ginko Craig'
- **TREATMENTS:** Configure (benzyladenine, Fine Americas); applied as foliar sprays at a volume of 210 ml/m²: at rates of 0, 1000, 3000, 6000 ppm.
- **EXPERIMENTAL DESIGN:** Each plant species was set up as an individual experiment with plants arranged in a completely randomized design with 6 single plant replications.
- **TIMELINES:**
 - Overwintered plants picked up: June 5, 2007
 - Set-up/treatment application: June 7, 2007
 - Data collections: 0, 30, 60 days after treatment

RESULTS AND DISCUSSION – OFFSET PRODUCTION

- A significant rate response to Configure was observed on all three cultivars.
- ***Hosta* ‘Liberty’** was responsive to Configure at the 2x rate (6000 ppm) but plants treated with this rate showed some phytotoxicity which persisted up to 6 WAT in some plants.
- ***Hosta sieboldiana* ‘Great Expectations’** was more responsive to the lower, 3000 ppm rate of Configure than ‘Liberty’ and showed little phytotoxicity at this rate. There was an increase in offset production with a final number about double that of controls. The higher rate (6000 ppm Configure) did not improve offset production significantly.
- ***Hosta sieboldiana* ‘Ginko Craig’** was very responsive to Configure with significantly increased branching at 2 WAT with rates as low as 1000 ppm. Final (10 WAT) measurements still indicated a nearly double number of offsets produced on plants treated with 1000 ppm Configure. However, this cultivar showed significant damage at the 2x rate of Configure.

Trial Summary

- A consistent increase in offset production from plants treated with 'Configure' was observed in these tests.
- The greatest increases in offset production has been shown to occur with late summer applications of 6-BA on spring-planted *Hosta*, where the plants are well-established and the temperatures are still warm enough to promote offset production and growth.
- Generally speaking, at the lower rates phytotoxicity was not severe. The data were grouped at 15% of leaf area affected but most of the actual ratings were 5%. So, the potential for injury with Configure when applied at labeled rates is temporary, and should be considered minimal.
- This test supports earlier work on the use of cytokinins to promote offset production in *Hosta*.

Percentage of Hosta plants (cv. 'Liberty') treated with Configure showing damage.

Rate (ppm)	2 WAT	4 WAT	6 WAT	8 WAT	10 WAT
0	0	0	0	0	0
1000	50	0	0	0	0
3000	67	0	0	0	0
6000	67	0	0	0	0

Percentage of Hosta plants (cv. *'Great Expectations'*) treated with Configure showing damage.

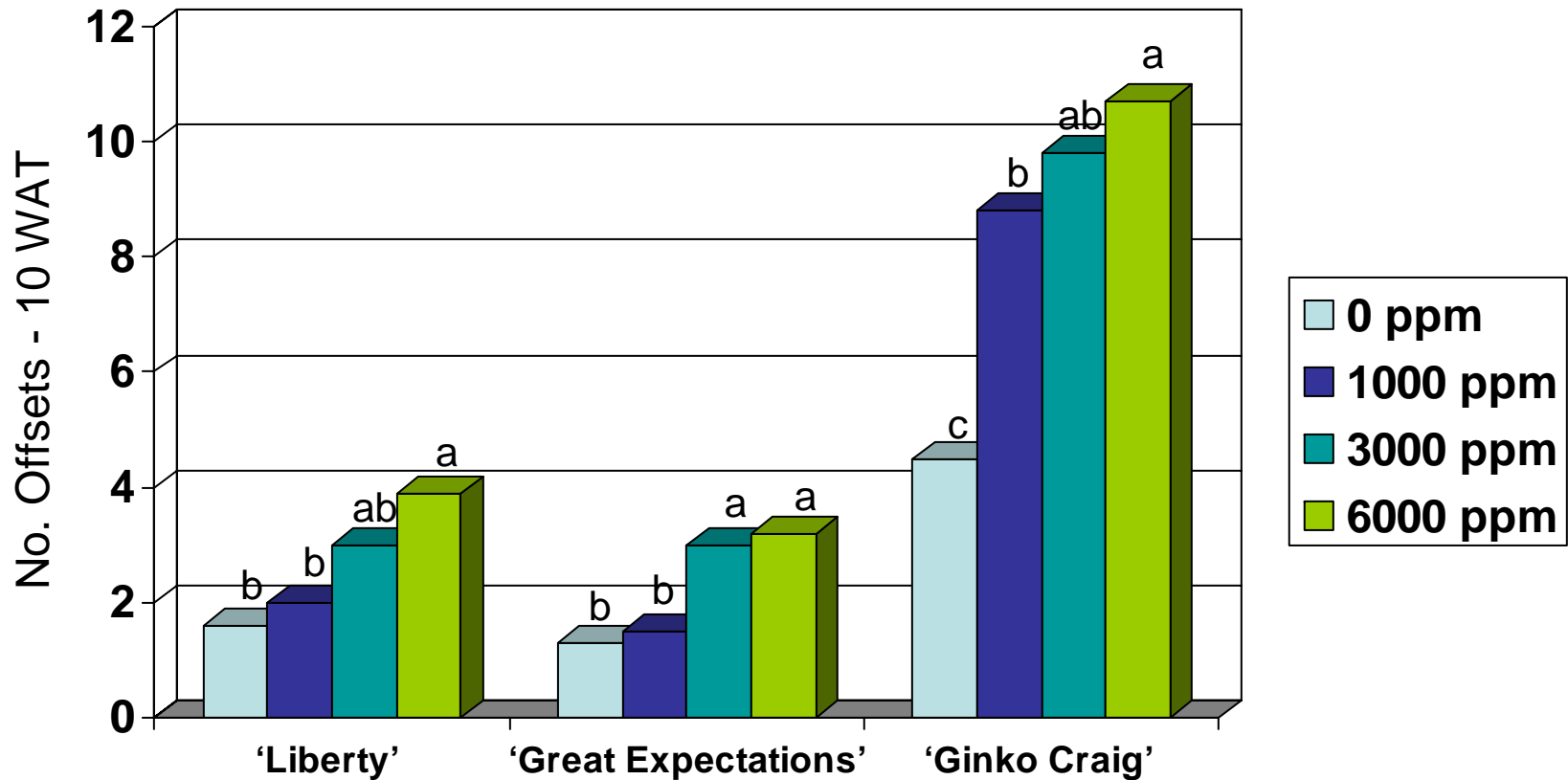
Rate (ppm)	2 WAT	4 WAT	6 WAT	8 WAT	10 WAT
0	0	0	0	0	0
1000	33	0	17	0	0
3000	33	0	17	0	0
6000	67	0	17	0	0

Percentage of Hosta plants (cv. 'Ginko Craig') treated with Configure showing damage.

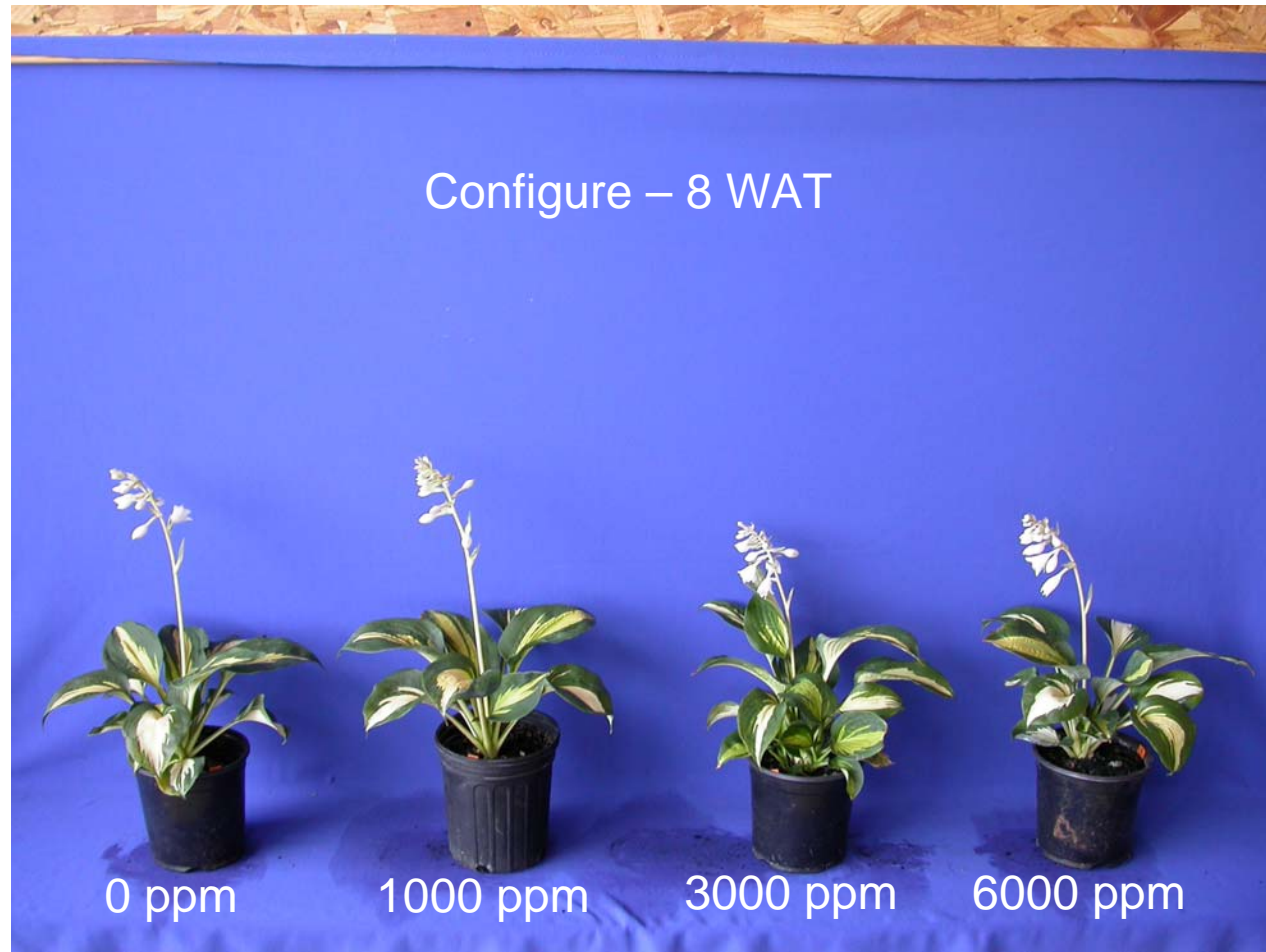
Rate (ppm)	2 WAT	4 WAT	6 WAT	8 WAT	10 WAT
0	0	0	0	0	0
1000	0	0	0	0	0
3000	50	17	50	0	0
6000	17	17	100**	0	0

** one plant with 50% leaf surface damage

Number of offsets on Hosta treated with Configure



Hosta '*Great Expectations*'



Hosta '*Ginko Craig*'

