

Project Title: Carryover Effect of Auxinic Herbicides on Peppermint

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Objective: To evaluate the mint injury one year after application of auxinic herbicides at different rates.

Results:

A field study was conducted in 2004 in an established field of Black Mitchum peppermint, planted in the fall of 2000. The field was sprayed with Goal 2XL on March 31, 2004 as a dormant treatment. The treatments included 3 rates of Banvel, Tordon, Garlon, Stinger, Starane, and an untreated check. These 5 herbicides were applied at 0.125, 0.25, and 0.5 lb ai/A on May 6, 2004 when mint was 3 inches tall. The treatments were applied using a CO₂ backpack sprayer in 20 GPA of water with XR11002 nozzles.

One year after herbicides application, carryover injury with the highest rate of Tordon was still observed. No crop injury was found with the lower rates of Tordon or with any of the other herbicides. Regarding mint biomass yield, the high rate of Tordon (0.5 lb ai/a) was the only treatment to reduce yields. All other treatments produced yields similar to the untreated control.

Summary:

Carryover effects were only observed with the high rate of Tordon.

Table 1. Carryover effects of Banvel, Tordon, Garlon, Stinger and Starane on peppermint.

Trt No.	Treatment Name	Rate lb ai/a	Crop Injury % 7/6/05	Biomass yield ton/ac 8/8/05
1	Banvel SGF	0.125	0.0	2.7
2	Banvel SGF	0.250	0.0	3.0
3	Banvel SGF	0.500	0.0	3.1
4	Tordon 22K	0.125	0.0	2.7
5	Tordon 22K	0.250	11.7	3.0
6	Tordon 22K	0.500	50.0	2.3
7	Garlon	0.125	0.0	2.9
8	Garlon	0.250	0.0	3.0
9	Garlon	0.500	0.0	2.9
10	Stinger	0.125	0.0	3.0
11	Stinger	0.250	0.0	2.6
12	Stinger	0.500	0.0	2.8
13	Starane	0.125	0.7	2.7
14	Starane	0.250	0.0	3.0
15	Starane	0.500	0.0	2.8
16	Untreated		0.0	2.7
LSD (P=0.05)			4.33	0.42
CV (%)			66.65	8.98
Treatment F			71.00	1.89
Treatment Prob(F)			0.0001	0.069