

**TITLE: Chamomile Trial**

PROJECT LEADER: Leon Welty, MSU-NWARC

RESEARCH ASSISTANT: Louise Strang, MSU-NWARC

Two cultivars of German chamomile, 'Bodegold' and 'Bona', were direct seeded on May 3, 1999 at 0.29 g/60 ft<sup>2</sup> plot. This first seeding was not successful, and the nursery was reseeded closer to the surface at 0.58 g/plot (49.6 seeds/linear ft.) on May 27. This seeding resulted in visible germination on June 10. Three plots of each variety were planted in each replicate to allow 3 different harvest/distillation treatments to be tested: 1) hand raking the blossoms from the plants, and distilling the dry flowers; 2) clipping the tops of the plants with a swather, drying, and distilling the dry clippings; 3) clipping the tops and distilling the fresh clippings.

Bona was harvested 4 times in 1999, and Bodegold, which grew slower, was harvested 3 times. The last harvest for both varieties was a total dry matter clipping on Sept. 10, which was dried and distilled. Bona clipped and dried produced the most oil (6.7 lbs./acre), and Bona clipped and distilled fresh produced the least (2.1 lbs./acre). These yields are only rough estimates. The small amount of material distilled and the viscosity of the oil made accurate measurement very difficult.

**Chamomile Trial**

<u>Cultivar</u>	<u>Stand pl/ft</u>	<u>Harv/Distill</u>	<u>Date</u>	<u>Dm Yld lbs/a</u>	<u>Oil Concen % of dm</u>	<u>Oil Yield lbs/a</u>
Bodegold	8.6	clip-green	8/12	1591	0.04	0.6
			8/26	843	0.05	0.4
			9/10	3801	0.05	2.0
			<b>Total</b>	<b>6235</b>		<b>3.0</b>
Bodegold		clip-dry	8/12	996	0.02	0.2
			8/26	1120	0.09	1.0
			9/10	3862	0.05	1.8
			<b>Total</b>	<b>5978</b>		<b>3.0</b>
Bodegold		rake	8/12	431	0.12	0.5
			8/26	627	0.08	0.5
			9/10	7440	0.03	2.5
			<b>Total</b>	<b>8498</b>		<b>3.5</b>
Bona	8.0	clip-green	8/3	764	0.05	0.4
			8/19	893	0.04	0.4
			9/3	1607	0.02	0.4
			9/10	1533	0.06	0.9
			<b>Total</b>	<b>4797</b>		<b>2.1</b>
Bona		clip-dry	8/3	1000	0.21	2.1
			8/19	1007	0.14	1.4
			9/3	1886	0.10	1.8
			9/10	1282	0.11	1.4
			<b>Total</b>	<b>5175</b>		<b>6.7</b>
Bona		rake	8/3	451	0.11	0.5
			8/19	647	0.08	0.5
			9/3	373	0.13	0.5
			9/10	5909	0.04	2.2
			<b>Total</b>	<b>7380</b>		<b>3.7</b>