

USE OF MagAmp AND LIQUID SUPPLEMENTS FOR PRODUCTION OF BEDDING PLANTS

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Better growth and flowering of bedding plants resulted when MagAmp* was used with supplemental liquid feed than when either was used alone.

Research has been conducted at the University of Connecticut Vegetable Research Farm from 1969 to 1971 to develop improved nutritional practices for bedding plant production. Use of controlled-release fertilizers (see the Connecticut Greenhouse Newsletter, No. 44, page 10) offered some advantages over conventional fertilizers. But, often, these were only increased conveniences, not improved performance. In an attempt to further increase the rate of growth and flowering of bedding plants, experiments were set up to test combinations of controlled-release fertilizers with liquid supplements.

Marigolds cv. Petite Yellow were transplanted 11/1/69 into a peat-vermiculite mix containing 5, 10 or 15 lbs. per cubic yard of MagAmp 7-40-6. Similar mix containing 2 lbs. superphosphate and

* MagAmp supplied through the courtesy of Jiffy Products of America, W. Chicago, Illinois.

5 lbs. 5-10-10 was used as a control treatment. All mixes contained 15 lbs. per cubic yard of limestone.

After transplanting, the 3 MagAmp treatments were divided into four groups. One group received no additional fertilizer, three days after transplanting one received an application of 10-52-17 (starter solution) at 3 lbs. per 100 gals., one received an application of 20-20-20 at 2 lbs. per 100 gals., while the last received weekly applications of 20-20-20 at 2 lbs. per 100 gals. The control also received weekly applications of 20-20-20.

The data in Table 1 show the results of this trial. In all cases, a single application of 20-20-20 increased early flowering (12/23) as compared to the same rate of MagAmp without liquid supplement. With the 5 and 10 lb. rates of MagAmp, the number of flowers with a single application of 20-20-20 was significantly greater than the control treatment. Total number of flowers (1/19) were also greater for the MagAmp plus one 20-20-20 application than for any other treatment.

Use of a single application of 10-52-17 either had no effect or depressed early bloom with variable results evident by the final rating.

Weekly applications of 20-20-20 resulted in delayed flowering and decreased total flower numbers at all rates of MagAmp.

Table 1. Effect of MagAmp and Liquid Supplement on Growth and Flowering of Petite Yellow Marigolds.

Lbs./Yd.	Fertilizer Supplement	Average Height in Inches			Number of Blooms	
		12/1	12/23	1/19	12/23	1/19
MagAmp	None	2.5	3.0	3.0	4.3	14.0
7-40-6	10-52-17 once*	2.5	3.3	---	1.3	----
5#	20-20-20 once**	2.3	3.0	3.0	5.3	18.0
	20-20-20 weekly	2.5	3.0	3.3	3.3	12.0
MagAmp	None	2.7	2.7	3.0	1.7	11.7
7-40-6	10-52-17 once	2.7	3.2	3.2	2.0	16.3
10#	20-20-20 once	3.2	3.0	3.0	6.7	18.0
	20-20-20 weekly	2.5	3.3	3.7	2.3	11.7
MagAmp	None	2.2	2.5	2.9	0.7	12.7
7-40-6	10-52-17 once	1.8	2.1	2.6	0.7	3.3
15#	20-20-20 once	2.3	3.2	3.3	1.3	14.7
	20-20-20 weekly	2.2	2.6	2.7	0	9.0
2# 0-20-0 +	20-20-20 weekly	2.2	2.9	3.3	3.3	13.3
5# 5-10-10						

*3 lbs./100 gal.

**2 lbs./100 gal.