2010 Home Demonstration Gardens

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Introduction

Themes for the 2010 Home Demonstration Garden Field Days were several newer cultivars of annual flowers (zinnia, four o'clocks, gazania, gaillardia, petunia, coleus, and vinca), a blooming quilt block, eggplant cultivars (including an inedible eggplant), and a compost trial.

Materials and Methods

Seeds of most vegetable and annual flowers were sown in late February and March 2010 at the ISU Horticulture Greenhouses in Ames, IA. Approximately one month later seedlings were transplanted into cell packs. Plants were distributed to each research farm in early May for planting in mid- to late-May. Plants were hardened or acclimated to growing conditions at each farm for a week or more prior to planting. ISU Research Farms participating in the 2010 Home Demonstration Garden trial and display included: Armstrong, Horticulture Research Station, Muscatine Island, Northern, Northeast, Northwest, and the Lyon County Fairgrounds. Transplants were watered at planting and then as needed throughout the growing season. The amount of water applied at each garden varied considerably due to weather conditions.

Compost from the Iowa State University Compost Facility was incorporated in approximately one half of the Home Demonstration Garden at each site prior to planting. Different levels of compost were applied for comparison with non-treated sections of the garden. Total weight and total number of fruit (except beans) were collected and recorded at two of the research farms (Armstrong Research Farm in Lewis, IA and Northern Research Farm in Kanawha, IA).

Results and Discussion

A comparison of total yield from the compost study for two locations is presented in Table 1. No general pattern emerged in total yield with the vegetables trialed. No differences in number or size of fruit in relation to treatment were detected either (data not presented). The treatment with the highest total yield varied with crop, cultivar, and location. In many instances, no additional compost produced the highest yields. This is not surprising as the research farms that collected data generally have excellent soils and growing conditions for annuals and vegetables. Soil tests were not conducted prior to or at the completion of this study for comparison. More research is needed to accurately determine the effects of compost on yield of commonly grown vegetables in these settings.

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Table 1. Comparison of total yields (lb) of several vegetables grown in different levels of compost. Data collected and reported from two research farms only.

	Research Farm					
	Armstrong, Lewis, IA			Northern, Kanawha, IA		
Compost rate[1]	None	1/3	2/3	None	1/3	2/3
Bush Bean						
Ambra	8.25	6.25	8.00	9.59	8.91	6.63
Hickok	4.75	5.13	5.50	7.53	7.75	5.50
Lewis	4.38	5.63	7.13	10.28	7.97	6.78
Beananza	4.31	5.38	6.19	9.06	7.47	5.78
Sweet Corn						
Monteuk	14.13	10.56	11.81	6.94	6.00	6.56
Providence	17.50	12.63	6.00	4.00	2.84	5.31
Potato						
Kennebec	20.50	17.90	14.40	12.06	13.88	11.17
Yukon Gold	19.30	19.30	17.00	6.75	12.31	4.44
Pepper						
Declaration	10.19	5.38	2.44	10.84	6.56	8.91
Revolution	5.63	7.38	2.69	8.91	15.75	11.25
Tomato[2]						
Mt. Glory	--	--	--	8.75	11.75	12.56
Primo Red	--	--	--	12.56	18.40	16.28
Scarlet Red	--	--	--	10.13	8.69	5.00

[1]Compost application rate was none, 1/3 = 1/3 of a pickup load and 2/3 = 2/3 of a pickup load.
[2]Tomato data from the Armstrong Farm were not collected due to disease.