

SUMMER SQUASH TRIAL

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OBJECTIVE:

To evaluate adaptability of 20 zucchini and 8 yellow squash varieties to southwest Michigan mid-season growing conditions.

SUMMARY:

Four zucchini ('Cashflow', RSQ0227, 'Dividend', and 'Lynx') and five yellow squash ('Prosperity', 'Enterprise', 'Cougar', RSQ0310, and 'Fortune') had significantly higher total yields than other entries. Total yields for zucchini ranged from 2636 half-bushels/acre ('Cashflow') to 1526 hb/a (SQN02000059). Yellow squash total yields ranged from a 2095 hb/a ('Prosperity') to 1566 hb/a ('Sunray').

METHODS:

Fertilizer: Prior to planting, 0-0-60, 21-0-0, and Solubor were added at a rate of 200, 150, and 5 pounds/acre, respectively. After planting 4-0-8-2(Ca) was applied through the drip irrigation at a rate of 1 pound of nitrogen/acre/day. Application of 4-0-8-2 began on 20 July and ended on 26 August, 2002.

Fumigation/Herbicide: Beds were fumigated at shaping and plastic laying with 20 gallons/acre Telone C-35. Prior to planting, Curbit 3E at 2 pints/acre was applied between the plastic.

Planting: Direct seeding was done 20 June, 2002 in raised, plastic mulched beds, 6" high and 24" wide. Beds were spaced on 5.5' centers and in row spacing was 18" (5280 plants/acre). The two species were placed in separate trials. The trials were planted and analyzed as a completely randomized design with four replications, eight plants/replication. Each plot was bordered by two guard plants.

Harvest: Harvest was conducted 15 times; 26 July through 28 August, 2002.

RESULTS:

Zucchini total yields were generally higher than yellow squash (Table 1 and 2). Zucchini total yields ranged from 2636 half-bushel/a (hb/a) for 'Cashflow', to 1526 hb/a for SQN02000059 (Table 1). RSQ0227 (2551 hb/a), 'Dividend' (2331 hb/a), and Lynx (2221 hb/a) were not significantly different than 'Cashflow' in total yield. 'Cashflow' also had the highest number of medium, large and cull fruit, 788, 1114, and 254 hb/a, respectively. 'Dividend' had the highest number of small fruit at 634 hb/a, however, it was not significantly different than RSQ0227 (572

hb/a) and 'Lynx' (552 hb/a).

Yellow squash yields ranged from 2095 hb/a for 'Prosperity' to 1566 hb/a for 'Sunray'. Yields for 'Enterprise' (1860 hb/a), 'Cougar' (1761 hb/a), RSQ0310 (1752 hb/a), and 'Fortune' (1749 hb/a) were not significantly different from 'Prosperity'. 'Prosperity' had the highest yield of large fruit (1114 hb/a) and was among the leaders in small and cull fruit. There were no differences in yield of medium fruit.

Many of the lines tested are tolerant to one or more viruses that are potential problems in southwest Michigan. In many years virus diseases seriously decrease yields in later plantings. Growers planning on August and September harvests should consider planting virus tolerant lines, even though they may be more costly.

Table 1. Yield in _ bushels of 20 zucchini at the Southwest Michigan Research and Extension Center in 2002. Plants were grown on raised, plastic-mulched beds with drip irrigation. Beds were 66" on center, plants 18" in the row (5280 plants/A). All seed was supplied by Rogers Seed Company.

Entry	TY	SmY	%T	MedY	%T	LrgY	%T	CuY	%T
Cashflow	2636	481	18	788	30	1114	41	254	10
RSQ0227	2551	572	22	744	29	1055	42	179	7
Dividend	2331	634	27	562	14	975	40	160	7
Lynx	2221	552	25	663	31	842	37	164	7
Zucchini Elite	1955	416	22	589	31	847	42	102	5
SQN02000049	1930	457	25	441	22	914	47	118	6
RSQ0224	1898	449	24	600	32	714	37	136	8
SQN02000047	1893	459	24	589	32	729	38	116	7
Spineless Beauty	1868	403	22	335	18	1038	55	92	5
RSQ0202	1856	493	27	673	36	599	32	90	5
Senator	1853	344	19	389	21	1060	57	60	3
RSQ0190	1779	433	25	475	28	717	39	154	9
RSQ0180	1755	374	21	333	19	872	49	176	10
SQN02000050	1736	422	25	460	27	750	43	104	6
Independence II	1723	348	20	453	27	666	19	256	15
SQN02000038	1691	395	23	390	23	767	45	138	8
SQN02000035	1639	404	25	469	28	665	41	101	6
Tigress	1596	306	22	441	26	803	49	45	3
SQN02000039	1568	403	26	441	28	674	42	49	3
SQN02000059	1526	364	24	475	31	631	41	56	4

LSD_{0.05} = 529 126 7 191 8 379 10 105 5

TY = total yield; %T = per cent TY; SmY = yield small (<+ 6"); MedY = yield medium (6 - 8"); LrgY = yield large (8" +); CuY = cull yield.

Table 2. Yield in _ bushels of eight yellow squash at the

Southwest Michigan Research and Extension Center in 2002. Plants were grown on raised, plastic-mulched beds with drip irrigation. Beds were 66" on center, plants 18" in the row (5280 plants/A). All seed was supplied by Rogers Seed Company.

Entry	TY	SmY	%T	MedY	%T	LrgY	%T	CuY	%T
Prosperity	2095	580	27	543	26	617	29	354	17
Enterprise	1860	457	26	565	30	495	27	342	17
Cougar	1761	516	29	564	32	490	28	191	11
RSQ0310	1752	667	38	609	35	384	22	92	5
Fortune	1749	457	26	633	36	380	22	278	16
Multipik	1703	552	33	629	36	317	19	205	12
RSQ0308	1676	534	32	525	32	455	27	161	9
Sunray	1566	650	43	552	35	233	15	131	8
LSD _{0.05} =	376	151	9	ns	9	192	8	148	6

TY = total yield; %T = per cent TY; SmY = yield small (<+ 6"); MedY = yield medium (6 - 8"); LrgY = yield large (8" +); CuY = cull yield.