Table 2. Yield and plant health of ‘Lioness’ squash as affected by companion planting

with white yarrow or feverfew or by early season protection from a row cover.

 Marketable fruit Cull fruit Total fruit Healthy plantsz

Treatment (thou./ha) (Mg·ha-1) (thou./ha) (thou./ha) (thou./ha)

 2013 - Perkins Location

Control 213 45.1 38 251 17

Yarrow companion 210 45.0 41 250 19

Feverfew companion 269 55.4 53 321 20

Row cover 191 40.5 37 228 20

 Main effect NS NS NS NS NS

 2014 - Perkins Location

Control 88 16.4 ay 22 111 a 16

Yarrow companion 69 12.2 b 14 82 b 17

Feverfew companion 80 14.3 ab 13 93 b 17

 Main effect NS \* NS \*\* NS

 2014 - Motes Location

Control 197 34.2 16 212 16

Yarrow companion 206 35.2 18 224 13

Feverfew companion 242 41.4 21 263 16

Row cover 197 34.3 21 218 10

 Main effect NS NS NS NS NS

 2014 - Whitmore Location

Control 112 15.4 1 113 16

Yarrow companion 85 11.6 4 89 9

Feverfew companion 108 14.4 5 113 20

Row cover 102 15.9 4 105 13

 Main effect NS NS NS NS NS

 2015 - Motes Location

Control 26 3.2 0.6 27 7

Yarrow companion 38 5.4 0.8 38 15

Feverfew companion 29 4.0 0 29 8

Row cover 32 4.0 2 34 4

 Main effect NS NS NS NS NS

 2015 - Whitmore Location

Control 121 12.6 4 124 20

Yarrow companion 110 11.9 2 112 20

Feverfew companion 117 12.7 0.6 117 20

Row cover 115 14.2 2 117 20

 Main effect NS NS NS NS NS

z Counted at the termination of each year’s trial.

y Within date-location combinations and within columns, means followed by the same

letter do not differ at *P* ≤ 0.05 using protected pairwise comparisons on least square means.

Table 3. Yield and plant health of ‘Lioness’ squash and dry weight of feverfew as affected by row arrangement and timing of

feverfew companion planting with squash at Perkins, OK in 2015z.

 -------------------------------------------------- Squash -------------------------------------------------

 Timing of Marketable *P* value Marketable *P* value Cull *P* value

No. of rows feverfew fruit for trt. vs. fruit for trt. vs. fruit for trt. vs.

of squash planting (thou./ha) control (Mg·ha-1) control (thou./ha) control

1 None (Control) 57 9.4 17

1 Same as squash 63 0.638 11.2 0.476 16 0.838

1 Early 68 0.346 12.4 0.198 16 0.868

2 Same as squash 43 0.257 7.6 0.455 13 0.316

2 Early 56 0.873 9.6 0.953 8 0.025

*P* values for simple effects of timing of feverfew planting given number of rows of squash

Within 1 row 0.680 0.608 0.959

Within 2 rows 0.319 0.424 0.215

*P* values for simple effects of number of rows of squash given timing of feverfew planting

Within same as squash timing 0.143 0.184 0.449

Within early timing 0.276 0.217 0.034

Table x continued.

 ---------------------------- Squash ------------------------------- ---------- Feverfew ----------

 Timing of Total *P* value Healthy *P* value Dry wt. P value

No. of rows feverfew fruit for trt. vs. plantsy for trt. vs. per plant for trt. vs.

of squash planting (thou./ha) control (thou./ha) control (mg) control

1 None (Control) 74 17 - -

1 Same as squash 79 0.647 17 0.999 480 No test

1 Early 84 0.302 19 0.527 1836 No test

2 Same as squash 56 0.101 16 0.844 132 No test

2 Early 63 0.276 18 0.751 1630 No test

*P* values for simple effects of timing of feverfew planting given number of rows of squash

Within 1 row 0.610 0.558 < 0.001

Within 2 rows 0.475 0.625 < 0.001

*P* values for simple effects of number of rows of squash given timing of feverfew planting

Within same as squash timing 0.057 0.854 0.661

Within early timing 0.048 0.751 0.383

z With one row of squash there were two rows of feverfew, one of each side of the central squash row. With two rows of squash,

the pattern was reversed and there was one row of squash on each side of a central row of feverfew. “Early” planting of feverfew

occurred on 26 Apr. Squash were not planted until 12 May. See text for details.

y Counted at the termination of the trial.