Table 1. General plot management.

| Trial Information | Borderview Research Farm Alburgh, VT | | | |
|-------------------|---|--|--|--|
| Soil Type | Benson rocky silt loam | | | |
| Previous crop | Spring Wheat | | | |
| Planting date | 19-Apr | | | |
| Harvest date | 6-Sep | | | |
| Seeding rate | 50 lbs $acre^{-1}$ | | | |
| Tillage methods | Mold board plow, disk, and spike toothed harrow | | | |

Table 2. Weed control techniques.

| Treatment | Row spacing inches | Planter | Cultivation |
|---------------|--------------------|--------------------------|---------------|
| Narrow row | 4.5 | Kverneland grain drill | none |
| Wide row with | | | |
| cultivation | 9 | Kverneland grain drill | Schmotzer hoe |
| Tine-weed | 6 | Great Plains grain drill | Tine-weeder |
| Interseed | 6 | Great Plains grain drill | none |
| Control | 6 | Great Plains grain drill | none |

Table 3. Seasonal weather data¹ collected in Alburgh, VT, 2013.

| Alburgh, VT | April | May | June | July | August | September |
|---------------------------------|-------|------|-------------------|-------|--------|-----------|
| Average temperature (°F) | 43.6 | 59.1 | 64 | 71.7 | 67.7 | 59.3 |
| Departure from normal | -1.2 | 2.7 | -1.8 | 1.1 | -1.1 | -1.3 |
| | | | | | | |
| Precipitation (inches) | 2.12 | 4.79 | 9.23 1 | 1.89 | 2.41 | 2.2 |
| Departure from normal | -0.7 | 1.34 | 5.54 | -2.26 | -1.5 | -1.44 |
| | | | | | | |
| Growing Degree Days (base 32°F) | 349 | 848 | 967 | 1235 | 1112 | 824.7 |
| Departure from normal | -35.6 | 91.4 | -47 | 36.8 | -27.2 | -33.4 |

¹Based on weather data from a Davis Instruments Vantage Pro2 with WeatherLink data logger. Historical averages are for 30 years of NOAA data (1981-2010) from Burlington, VT.

+ June 2013 precipitation data based on National Weather Service data from cooperative stations in South Hero, VT (http://www.nrcc.cornell.edu/page_summaries.html)

Table 4. Plot characteristics and harvest yield of flax grown with different weed control techniques, Alburgh, VT.

| Treatment | Flax Population plants m ² | Weed Population plants m ² | Height in | Weed cover % | Yield lbs. ac^{-1} |
|--------------|---|--|--------------|-----------------|-----------------------------|
| Wide w/ hoe | 404 | 567 | 8.1 | 16.6* | 622* |
| Narrow row | 409 | 352 | 8.6 | 14.0* | 474* |
| Control | 321 | 351 | 7.6 | 40.8 | 272 |
| Trial Mean | 378 | 423 | 8.1 | 23.8 | 456 |
| LSD (p<0.10) | NS | NS | NS | 15.6 | 187 |

*Varieties with an asterisk are not significantly different than the top performer in **bold**.

NS - No significant difference amongst varieties.



Figure 1. Flax control plot.



Figure 2. Wide row flax with Schmotzer hoe.



Figure 3. Narrow row flax.

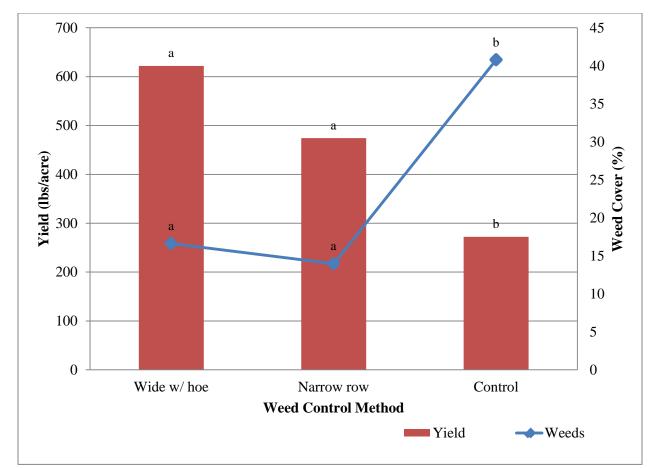


Figure 4. Yield (lbs/acre) and weed cover (%) of flax plots managed with different weed control techniques.