

# **2013 Flax Planting Date Trial**

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**2013 FLAX PLANTING DATE TRIAL**  
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## **INTRODUCTION**

Early seeding of flax generally produces the best yields and quality. Moderate temperatures and sufficient soil moisture during flowering and seed development are important for high yield and quality, and these conditions are more likely to occur with early seeding. There is little risk of frost damage with flax. Newly emerged flax can withstand temperatures down to 27°F, while plants past the two leaf stage can withstand temperatures as low as 18°F. Early planted flax will also establish before the majority of summer weed species. This could potentially help reduce weed competition. This trial was initiated to determine optimum flax planting dates to maximize yields.

## **MATERIALS AND METHODS**

Variations in yield and quality can occur because of variations in genetics, soil, weather and other growing conditions. Statistical analysis makes it possible to determine whether a difference among varieties is real, or whether it might have occurred due to other variations in the field. At the bottom of each table, a LSD value is presented for each variable (i.e. yield). Least Significant differences (LSD's) at the 10% level of probability are shown. Where the difference between two treatments within a column is equal to or greater than the LSD value at the bottom of the column, you can be sure in 9 out of 10 chances that there is a real difference between the two varieties. Treatments that were not significantly lower in performance than the highest value in a particular column are indicated with an asterisk. In the example below, A is significantly different from C but not from B. The difference between A and B is equal to 1.5, which is less than the LSD value of 2.0. This means that these varieties did not differ in yield. The difference between A and C is equal to 3.0, which is greater than the LSD value of 2.0. This means that the yields of these varieties were significantly different from one another. The asterisk indicates that B was not significantly lower than the top yielding variety.

Variety	Yield
A	6.0
B	7.5*
C	9.0*
<b>LSD</b>	<b>2.0</b>

## RESULTS AND DISCUSSION

Seasonal precipitation and temperature recorded at a weather station in Alburgh, VT are shown in Table 2. From April to September, there was an accumulation of 4,511 Growing Degree Days (GDDs) in Alburgh which is 18 GDDs less than the 30-year average. Flax needs 1,603 GDDs to reach maturity.

**Table 2. Seasonal weather data<sup>1</sup> collected in Alburgh, VT, 2013.**

Alburgh, VT	April	May	June	July	August
Average temperature (°F)	43.6	59.1	64	71.7	67.7
Departure from normal	-1.2	2.7	-1.8	1.1	-1.1

Flax plot characteristics and harvest yields are presented by planting date in Table 3 and by variety in Table 4. Overall, yields were lower than expected due to heavy weed pressure.

**Figure 1. Average yields of two flax varieties planted at four different planting dates from mid-April to mid-May.**

## **ACKNOWLEDGEMENTS**

The UVM Extension Northwest Crops and Soils Team would like to thank USDA SARE Partnership Grant program for funding this research. Special thanks to Roger Rainville and the staff at Borderview Research Farm. This information is presented with the understanding that no product discrimination is intended and neither endorsement of any product mentioned, nor criticism of unnamed products, is implied.

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