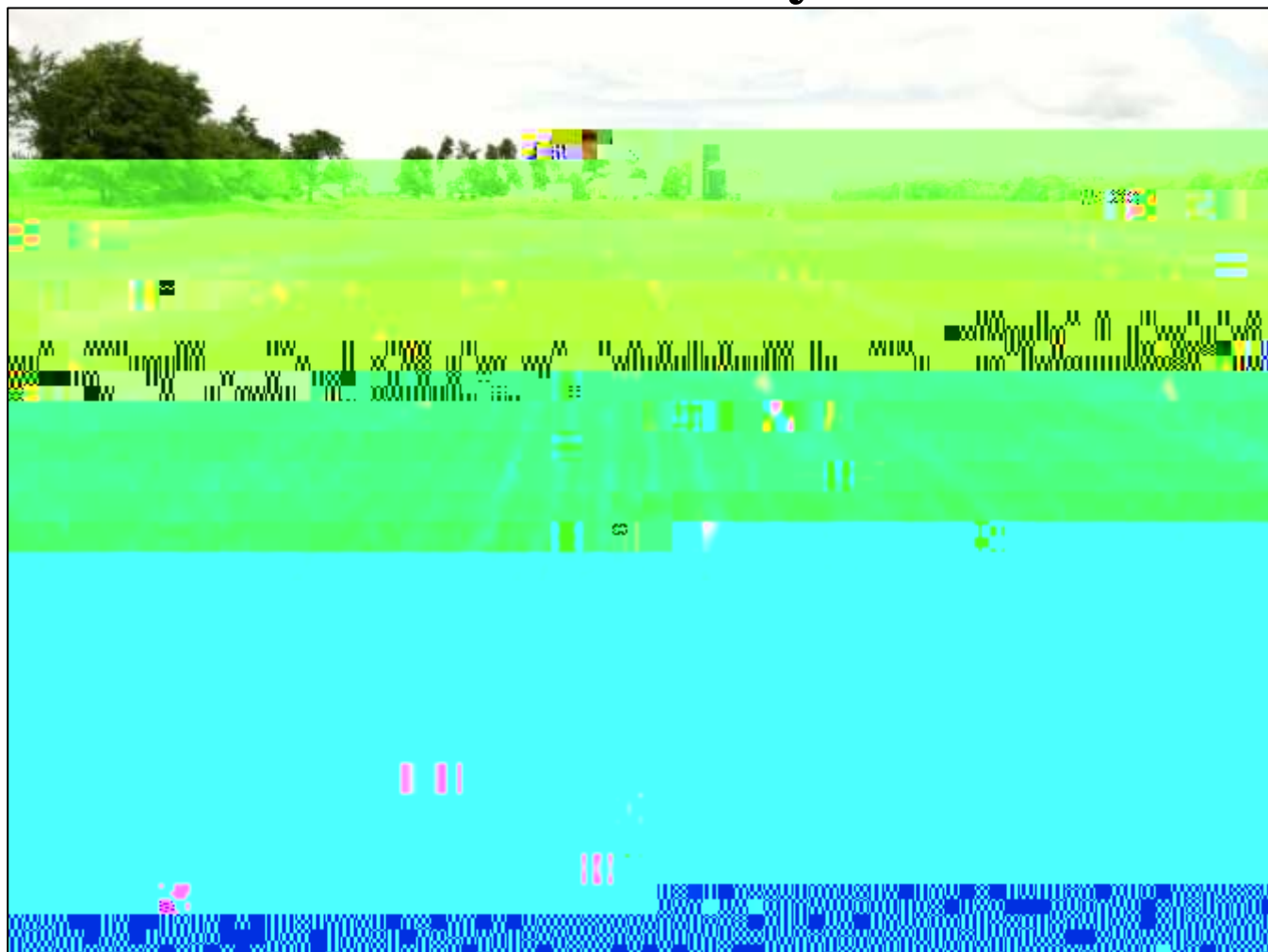


2013 Flax Variety Trial



Dr. Heather Darby, UVM Extension Agronomist
Susan Monahan, Conner Burke, Erica Cummings, and Hannah Harwood
UVM Extension Crops and Soils Technicians
802-524-6501

Visit us on the web: <http://www.uvm.edu/extension/cropsoil>

2013 FLAX VARIETY TRIAL

Dr. Heather Darby, University of Vermont Extension
heather.darby[at]uvm.edu

Flax (*Linum usitatissimum* L.) is a multi-purpose crop grown for its fiber, oil (linseed oil), and meal. The importance of flax as a major crop in the United States replaced linseed oil based paint. Recently there has been renewed interest in flax, both for human consumption and for animal feed, for its high levels of heart-healthy omega-3 fatty acids. This variety trial was established to determine what flax varieties can grow and thrive climatic conditions.

MATERIALS AND METHODS

Twelve flax varieties were planted at Borderview Research Farm in Alburgh, VT on 23-

Figure 2. Average yield of flax varieties grown in Alburgh, VT, 2013.

Characteristics of oil extruded from each flax variety are listed in Table 5. Overall, there was no significant difference amongst the varieties for oil content or other characteristics except for free fatty acids. All varieties had similar fatty acid levels except for the peroxide value. Peroxide value is a measure of rancidity of unsaturated fats and oils. Values below 10 are fresh. Rancid oils will measure between 30-40 Meq/kg. All of the oil from the flax varieties was fresh with peroxide values that averaged 1.5 Meq/kg of fat. The iodine value reflects the degree of unsaturation of an oil. The higher the number, the more unsaturated the oil is (the more

Table 5. Flax oil characteristics of twelve varieties grown in Alburgh, VT, 2013.

	Oil Content %	Peroxide Value Meq/kg of fat	Free Fatty Acids %	Insoluble Impurities %	Iodine Value %
Nekoma	33.4	1.5	8.1*	1.4	149
Pembina	32.7	1.9	8.5*	1.2	147
2055	32.5	1.3	5.6*	1.4	155
Nече	31.2	1.4	5.8*	1.3	154
Rahab 94	31.0	1.7	7.8*	1.4	147
York	30.7	1.2	5.0	1.4	155
Omega	30.1	1.8	8.0*	1.3	148
Prairie Blue	30.1	1.3	6.8*	1.5	153
2059	29.3	1.3	6.3*		

Figure 3. Flax oil content and free fatty acids of twelve varieties grown in Alburgh, VT, 2013.

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