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To: State Departments of Agriculture

The U.S. Canola Association (USCA) is writing to state departments of agriculture to increase awareness about the quality differentials of oil and meal derived from canola seed, industrial rapeseed and other members of the diverse *Brassica* family. The U.S. canola industry and producers have actively promoted high quality canola oil and meal to the U.S. food, feed and fuel industries and is concerned that cross-contamination of canola oil and meal with industrial rapeseed oil and meal or other seeds derived from *Brassica* species could harm canola's marketability.

Canola was granted Generally Regarded as Safe (GRAS) status by the U.S. Food and Drug Administration in 1985. This crop has been bred to produce the following specifications: (1) oil that contains less than 2 percent erucic acid and (2) a meal co-product that contains less than 30 micromoles of glucosinolates on an oil-free basis. However, there are also varieties of rapeseed that are visually identical and have high levels of erucic acid in the extracted oil. These varieties are defined as High Erucic Acid Rapeseed (HEAR) and they may or may not have a low-glucosinolate meal co-product. HEAR varieties have specialized industrial uses and their field production, procurement, processing and marketing must be strictly controlled through identity preserved or closed loop production systems to prevent contamination or co-mingling of their crush products with canola crush products in the general market place. Use of non-canola grade *Brassica* species for fall cover crops has increased amongst growers. This presents an additional risk to the canola industry if growers forgo spring cropping plans due to environmental or market reasons and take the cover crop to harvest and deliver it as canola.

The USCA is communicating to individual state agriculture departments the need to keep canola and its crush products segregated from industrial rapeseed and its crush products. In order to avoid potential issues related to the inappropriate use of industrial rapeseed, it is recommended that identity-preserved or closed loop production systems be officially enforced with continual quality control checks for any industrial rapeseed produced or processed in each state. Provision of general information to vendors of non-food use cover crop constituents is also recommended to prevent inadvertent delivery of non-canola grade seed to receiving facilities.

More information regarding this issue can be found at [www.uscanola.com](http://www.uscanola.com).

Respectfully yours,

Kevin Waslaski  
President, U.S. Canola Association

## Background on the Distinction Between Canola and Industrial Rapeseed

The introduction of canola – a member of the *Brassica* genus of plants – production into the U.S. began in 1985 following the decision by the U.S. Food and Drug Administration to grant canola oil “Generally Regarded as Safe” status. U.S. canola planted acreage has grown significantly since 1998,<sup>1</sup> with more than 1.6 million acres planted in 2012.<sup>2</sup> For the most recent crop year where statistics are available (2010-11), the U.S. crop provided nearly 1.2 million pounds<sup>3</sup> of high-quality vegetable oil to the food and biodiesel industries and 825,000 short tons<sup>4</sup> of quality, high-protein meal to the feed industry – a combined value of nearly \$1.1 billion. This production helps to offset the domestic demand for canola oil and meal; canola imports were valued at \$1.6 billion last year. The U.S. currently uses the equivalent of 5 million acres of the crop annually.

The Northern Plains, including North Dakota and northwest Minnesota, produce most U.S. canola. Winter canola varieties have been successfully introduced in the Great Plains and mid-South. Kansas, Oklahoma and Texas winter canola acreage has grown exponentially in recent years with 200,000 acres planted in these states last fall for harvest in 2012. The Great Plains offers great promise for canola as a rotational crop with wheat; research shows that canola cleans up weeds, pests and diseases in wheat fields. Acreage in Idaho, Oregon and Washington increased to nearly 57,000 acres in 2012.<sup>2</sup>

**The nomenclature “canola” was introduced to distinguish canola within the *Brassica* family, which has a wide range of plant species, including vegetables such as cabbage and broccoli, root crops such as turnips, and oilseed crops such as industrial rapeseed and High Erucic Acid Rape (HEAR).<sup>5</sup>**

**This “canola” distinction is very important** as it is directly related to the levels of two chemical components commonly found in seeds of the *Brassica* family:<sup>6</sup>

- **erucic acid**, a 22 carbon fatty acid, and
- **glucosinolates**, a term used to describe a family of sulfur-containing compounds.

Both of these constitute anti-nutritional factors in edible oil and meal used in the feed industry.

**Canola is distinct as it is specified as having:<sup>6</sup>**

- **less than 2% erucic acid in extracted oil** and
- **less than 30 micromoles** of any one or a mixture of
  - 3-butenyl glucosinolate,
  - 4-pentenyl glucosinolate,
  - 2-hydroxy-3-butenyl glucosinolate, and
  - 2-hydroxy-4-pentenyl glucosinolate per gram or air dry oil free solid (GLC method of the Canadian Grain Commission (CGC)).

**Rapeseed, in comparison, can contain higher levels of one or both of these components.<sup>7,8</sup> Due diligence should be exercised when introducing rapeseed meal into the feed industry as dictated by processing method (mechanical or hexane extraction) and animal species being fed.<sup>9,10</sup>**

Despite a fatty acid profile that differs significantly from canola oil, the use of HEAR oil as a feedstock for biodiesel production versus canola oil conforms with the ASTM 6751 fuel standard, which allows for up to 20 percent inclusion of biodiesel with regular diesel<sup>11</sup>.

The canola industry has invested heavily in promoting quality oil and meal from canola crushing operations to the U.S. food, feed and fuel industries. Cross-contamination with industrial rapeseed – be it at the farm level through cross-pollination or common storage and transport, or at the elevator level through common storage or from pre-market blending of substandard meal – would be disastrous for the national industry as it continues to promote healthy edible oils and quality meals that are now gaining market access into highly sensitive, monogastric feed formulations.

The U.S. Canola Association is communicating this information to state departments of agriculture to highlight the risks of comingling and/or improper use of industrial rapeseed in the canola industry. It is recommending that identity-preserved or closed loop production systems<sup>12</sup> be officially enforced with continual quality control checks for any industrial rapeseed produced or processed in that state.

#### References:

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