Canola Pesticides and Trade
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Nearly 75% of the Canadian canola crop is exported each year, either as seed or as oil and meal. As a result, long term access to existing and newly emerging export markets is critical to the continued success of the Canadian canola industry.

Japan is Canada’s number one export market for canola seed, and one of our most reliable markets. They recognize the quality of Canadian canola and its value, as evidenced by their consistent demand even when canola prices are high. Other significant markets for seed include Mexico, China and in some years Pakistan. When it comes to our more refined products (oil and meal), the U.S. is by far our biggest export market.

Like any customer, the importers of our canola have demands and expectations with regard to service and quality, as well as perceptions about Canada as a source. Fortunately, Canada is generally perceived as being a reliable supplier of high quality canola. However, our export customers are driven by the demands of consumers within those countries. Similar to consumers here in Canada, those consumers are becoming more aware of the link between food and health. As a result, they are becoming more sensitive to issues surrounding food quality and safety, causing some countries to respond by updating their food safety legislation and testing protocols. It is also important to note that these countries do have other choices for vegetable oil. They can choose to opt for other commodities, or if they recognize canola as the healthiest source they may choose to source it from other countries like Australia, the EU or China. Therefore it is crucial for Canada to continue to meet the increasing demands of our export customers, and maintain our reputation as the number one producer of canola in the world.

The best example of changes to import standards is the new food safety law which is being adopted by Japan in May of 2006. It will involve a substantial increase in testing (possibly every vessel) using a “positive” list system, meaning that any pesticide residue detected in an incoming vessel of canola will have to be below the maximum residue limit (MRL) on the list. There will be very low tolerance (<0.01 ppm) for pesticides not found on the list. The canola industry has done a great deal of work to ensure that all products commercially used in canola in Canada have an MRL, but it will be essential for growers to avoid any unregistered pesticide use in canola to ensure compliance with the approved list. It will also be important for growers to strictly follow all product recommendations with regard to maximum rates and pre-harvest intervals to ensure approved products do not exceed their MRL. The preharvest interval is the number of days that must pass between the last application of a pesticide and the cutting of the crop (swathing or direct-combining). Late season insect outbreaks like the bertha armyworm outbreak in northwestern Manitoba this year provide the best example of the potential for problems with preharvest intervals. The products registered for bertha armyworm in canola all have preharvest intervals of at least seven days, meaning that crops that are within a week of swathing must not be sprayed.

A French shipment of canola to Japan in 2003 that was identified as containing an unapproved stored product insecticide provides an example of the potential cost of exceeding an MRL. That vessel of seed was worth approximately $6 million, and it cost about $2 million to “dispose” of the cargo as a result of
having to find alternative marketing options, demurrage costs, etc. However, the bigger cost was to the industry as a whole, due to the disruption of trade between the two countries.

The Canadian Grain Commission does monitor outgoing canola shipments for pesticide residues. One example is glyphosate which consistently shows up as a result of late season preharvest weed control applications, but has always been below the MRL of 10 ppm. Another example is malathion, which has been monitored for the last ten years. Over that time period, there have been some positive tests for malathion as high as 2 ppm, which is above the MRL values for Canada (0.1 ppm) and Japan (0.5 ppm). The small acreage of crop sprayed with malathion in Canada each year made it doubtful that foliar application was the source, so a study was undertaken in 2005. Fifty harvest survey samples taken as the canola was harvested from the field were compared to fifty delivery samples taken at the point of entry into the elevator system. All of the fourteen positive tests came from the delivery samples, confirming on-farm storage as the source of the residues. Based on this evidence the canola industry has taken action to inform industry representatives and growers of the potential for contamination of canola in storage, through press releases and changes to the crop protection guides and product labels. Growers will be reminded to avoid both stored product treatment and empty bin insecticide treatments prior to storing canola. While this leaves only cultural control options for control of stored product insects in canola, these options can be quite effective. Most of the stored product insects in western Canada will not feed on healthy intact canola seed, feeding instead on fungi growing on spoiled canola or cereal dockage. Taking steps such as setting the combine to limit cracking and reduce excessive chaff, weed seeds and foreign plant material; sealing bins to avoid moisture leakage; and conditioning canola to keep it cool and dry throughout the bin are quite effective in preventing infestations.

Proper conditioning and intensive monitoring of stored canola will be critical this year, as many growers will likely be storing a significant quantity of canola in the hopes of improved commodity prices. The Canola Council recommends conditioning canola to a moisture content of about 8% and temperatures below 15°C to help ensure safe long term storage. Canola seed that has been aerated to bring down the temperature but is still at moisture contents of 10% or higher needs to be kept below 10°C to have any stability, and will still be extremely vulnerable to heating during periods of warm weather.

Potential trade issues are not limited to Japan. The deregistration of lindane seed treatment in Canada was done to avoid trade issues with the United States, our major buyer of our higher value processed products (oil and meal). The EPA has still not evaluated lindane for use on canola in the US, meaning the default tolerance is zero. Any use of this deregistered product on canola in Canada would create the potential for serious repercussions if residues were found.

In response to some of these potential trade issues the Canola Council is planning an awareness campaign to inform growers of the link between farm practices and international trade. Focus groups with producers are being conducted to get their feedback on the issues, as well as insights into the most effective means of delivering these messages to farmers.

In summary, Canada is recognized as being a reliable supplier that meets customer expectations, with high standards for food safety and quality and production practices that are environmentally sound. However, that reputation can easily be lost, and once it is lost it will be difficult to regain. Therefore, the entire industry has a responsibility to create awareness of the links between farm practices and trade,
particularly with regard to high risk practices that could jeopardize our export markets. If the industry can empower growers with the knowledge that management decisions on their farm do impact on the value of a vessel of seed being unloaded on the other side of the world, then our customers both here and abroad will thank us and canola will remain as a profitable crop to the growers and the industry.