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# MARKET ACCEPTANCE OF PESTICIDE USE POLICY

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# Table of Contents

Introduction.....	3
Background.....	4
The Assessment .....	6
Step One - Markets of Interest .....	6
Step Two - Pesticides of Interest .....	10
Step Three - Categorization .....	13
1. Likelihood and Extent of Potential Residue(s).....	15
a) Frequency and Quantity (concentrations) of Residues Detected in Grain.....	16
b) Supply of the Product.....	16
c) Use Pattern/Timing of Application.....	17
d) Extent of Pest Pressure.....	17
2. Handling, Shipping and Processing .....	17
a) Regional Concentration of Use.....	17
b) Bulk Grain Handling.....	18
c) Containerized Shipments .....	18
d) Location of Pesticide Use .....	18
3. Destination and End-Use Considerations .....	19
a) Regulatory System in Export Market .....	19
b) Commercial Compliance .....	19
c) End Use.....	19
Categories .....	20
Implementation: .....	22
Adherence to the Policy .....	24
Competition and Conflict of Interest .....	26
Annex 1 - Worksheet .....	27
Annex 2 – Blending Factor Calculator .....	29
Annex 3 – Communications Guidelines .....	31



## **Introduction**

*Canada's grain value chain is committed to supplying customers around the world with safe, high-quality grains, oilseeds, pulses and special crops (grains). To support this commitment, the value chain works together to establish policies that reinforce Canada's position as a competitive, dependable supplier of grains that meets end users' needs and expectations.*

*The objective of this grain value-chain driven policy is to establish a framework to proactively evaluate the MRL-related trade risk of chemistry/crop use patterns with new or amended registrations. When representatives from the value chain determine that the potential for an MRL-related trade disruption is unacceptable, a recommendation on the use of the chemistry/crop use pattern will be developed for the applicable crop year and communicated throughout the value chain.*

*The policy strives to provide an appropriate balance between enabling the commercialization of innovative and new chemistry/crop use pattern products, while ensuring that Canadian exports are not exposed to unacceptable trade risk.*



## Background

Canada has one of the most advanced pesticide registration processes in the world. Before approving a chemistry/crop use pattern in Canada, the Pest Management Regulatory Agency (PMRA) subjects it to a thorough scientific assessment to ensure it meets Health Canada's stringent standards.

“MRLs ensure that exposure to the pesticide residue presents no concerns for human health.”

“Canadian MRLs are set at levels far below the amount of pesticide residue that could present a health concern.”

*Health Canada*

The pesticide registration process results in the establishment of a maximum residue limit (MRL), specific to each individual chemistry/crop use pattern. MRLs are established at levels that are significantly below any level that could impact human health and are a rule-based reflection of good agricultural practice/use, rather than an indication of food safety.

The Codex Alimentarius Commission (Codex), through the Codex Committee on Pesticide Residues (CCPR), is the international standard-setting body responsible for the establishment of MRLs. Due to a variety of factors, there can be long waits for a Codex MRL to be established for chemistry/crop use patterns. It is not untypical for a chemistry/crop use pattern to be registered in Canada, with a Canadian MRL, well in advance of the establishment of a Codex MRL.

Many countries, including most key export markets, have their own national chemistry/crop use pattern registration and risk assessment systems. These systems can include the establishment of MRLs or Import Tolerances for pesticide residues on imported grains. With systems varying from one country to the next, it is not uncommon to experience missing or misaligned foreign MRLs even though a chemistry/crop use pattern is registered and can be used in Canada. Missing and misaligned foreign MRLs have the potential to negatively impact Canadian grain exports.

Canada's grain industry needs reliable and predictable access to foreign markets to maintain a healthy value chain. All members of the value chain support and benefit from open global trade. The potential for a trade disruption resulting from a missing or misaligned MRLs can put the entire grain industry at risk.

Canadian growers require access to modern crop protection technology to grow crops sustainably and profitably. At the same time grain handlers and exporters require assurance that they can market Canadian grains without undue risk of pesticide related trade disruption. Registrants also require assurance that they can

Where appropriate this policy refers to “chemistry/crop use pattern” instead of “pesticide” which may refer to a product whose registration includes multiple chemistries, crops and use patterns.



bring chemistry products to market in Canada without undue commercial restrictions. This initiative is being advanced to address these needs.

This policy applies to products regulated under the *Pest Control Products Act* that are, or are expected to be, registered for use in Canada with a Canadian MRL. The policy may also apply to other plant science technology innovations that are registered for use in Canada and have regulated MRLs established in key export markets, but do not have an established Canadian MRL.

The scope of this policy does not include unregistered chemistry/crop use patterns or grower use of chemistry/crop use patterns that have not been approved for use in Canada.

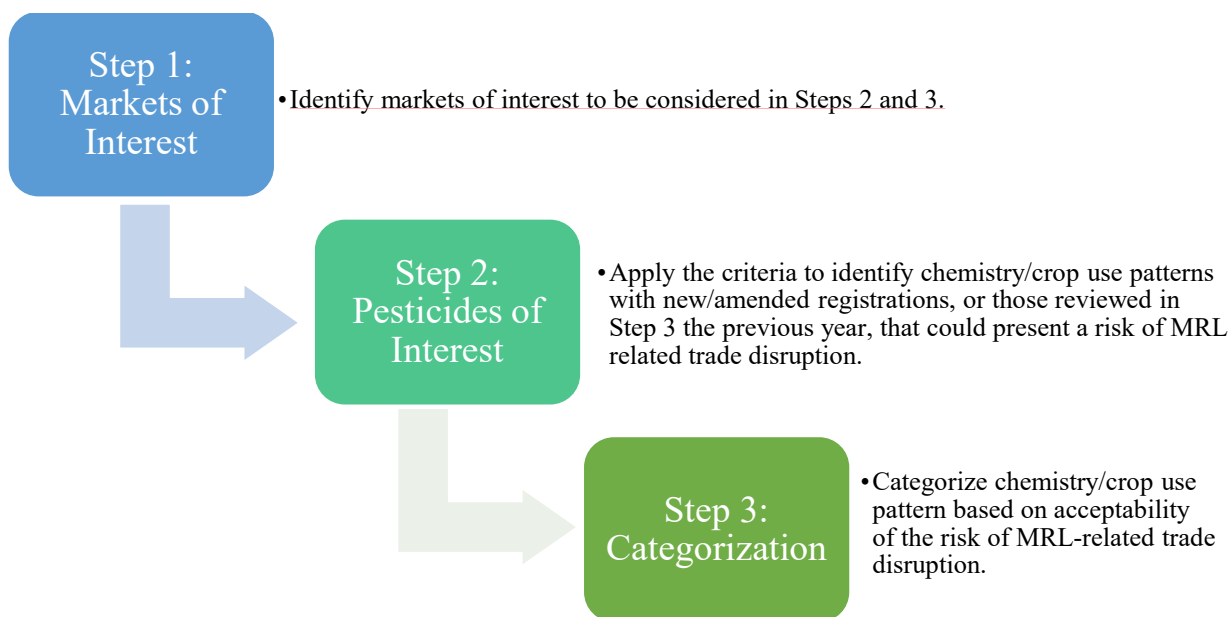


## The Assessment

The policy includes a three-step assessment process (“the assessment”), to evaluate the risk of a trade disruption due a chemistry/crop use pattern with a new or amended registration. The assessment is to be conducted annually by the relevant commodity association. The assessment steps are: 1) identification of Markets of Interest, 2) identification of Pesticides of Interest, and 3) Categorization of the risk of an MRL-related trade disruption for the chemistry/crop use pattern.

Chemistry/crop use patterns will be categorized as either green, amber or red. The chemistry/crop use patterns that are categorized as amber or “Be Informed”, and red “Do Not Use”, will be included on a grower advisory being issued for the crop year.

### 1. The Assessment Process



The assessment is most effective when there is openness, transparency and collaboration along the value chain. Representatives of the value chain who are participating in assessments are encouraged to share all relevant information that will improve the quality and thoroughness of the assessment. Taking an open, engaged approach to assessments will ensure the categorizations are based on actual risk and serve the interests of the entire value chain.

### Step One - Markets of Interest

Step One of the assessments is a ‘filter’ step. This step uses prescribed criteria to assist the value chain in arriving at a list of Markets of Interest that need to be considered during the subsequent steps in the assessment. This filter identifies markets that fall into: 1) international MRL policy



leaders and standard-setters, 2) markets undergoing policy change, 3) major export markets, and 4) markets of significance to the overall value chain.

It is necessary to understand the regulations in place in a Market of Interest. Markets of Interest that defer/default to, or have historically applied an MRL established by another country or regulatory agency, should continue to be considered in the review. However, to avoid duplication, the country or regulatory body to which the Market of Interest defers, will serve as the MRL for the assessment.

Markets of Interest are used to inform Steps Two and Three. A missing and misaligned MRL in a Market of Interest will not automatically result in a specific categorization, as the assessment must consider all relevant factors in Steps Two and Three when categorizing a chemistry/crop use pattern. Note that Steps Two and Three are identical for each Market of Interest regardless of which of the criteria below caused it to be identified as such. For example, as long as the EU is a Market of Interest, it is unimportant whether it was determined to be a leader/standard setter or a market undergoing policy change.

### **Criteria for Determining Markets of Interest**

#### **i) International MRL Policy Leaders and Standard-Setters:**

A core group of markets and agencies are at the forefront of MRL standard-setting and policy development. MRLs established by markets and regulatory bodies within this category may be applied as deferral pathways or import tolerances by other markets, and are almost always a major market for Canadian exports. The risk and impact of a trade disruption is high when an MRL is missing in one of these markets, due to their significant role within the international regulatory environment.

The Canada Grains Council MRL Steering Committee (CGC MRL Committee) is responsible for establishing the list of markets that fall within this category on an annual basis. All members of the value chain will have input into this determination given the broad makeup of the CGC MRL Committee. Commodity associations must include the markets/agencies on this list in their assessment unless it is agreed to by the CGC MRL Committee and the individual commodity association MRL assessment committee, that one or more of the Markets of Interest are not relevant to that commodity.

The CGC MRL Committee has established the list of International MRL Policy Leaders and Standard-Setters as: Codex, the United States (US), the European Union (EU) and Japan.

#### **ii) Markets Undergoing Policy Change:**

The risk of MRL-related trade disruption increases as markets move away from the international standard (Codex) to national MRLs. Risk also increases when the regulatory environment is



unclear in a market due to developing/changing MRL policy. While the impact of a noncompliance may be difficult to determine, it is important that this filter exists for major markets undergoing policy change.

The Canada Grains Council MRL Steering Committee (CGC MRL Committee) is responsible for annually establishing the list of markets that fall within this category. Commodity associations must include the markets/agencies on this list in their assessment unless it is agreed to by the CGC MRL Committee and the individual commodity association MRL assessment committee, that one or more of the Markets of Interest are not relevant to that commodity.

The CGC MRL Committee has established the list of Markets Undergoing Policy Change as: China and South Korea.

iii) Major Export Markets:

Major export markets are determined on a commodity basis. Given the volume of trade that Canada does with these markets, an MRL related trade disruption in these markets could be significant.

A major export market is a market that imports 5% or more of the total volume of the commodity's Canadian exports and seed equivalent of a primary processed product(s), on average, over the previous three years.

Commodity associations, in consultation with handlers and exporters, are responsible for maintaining export data and establishing annually a list of Major Export Markets.

iv) Markets of Significance to the Value Chain:

There may be markets deemed significant to the commodity value chain that are not captured in the first three categories and could include consistent or high-margin markets or markets having future export potential.

While short-term risk or impact of a trade disruption in such a market may be limited, long term consequences could impact the commodity's competitiveness.

Markets that fall within this category include:

- Markets that represent average annual exports as a sales equivalent of \$50M or more, in the previous three years, but represent less than 5% of the total volume of Canadian exports for the commodity; and



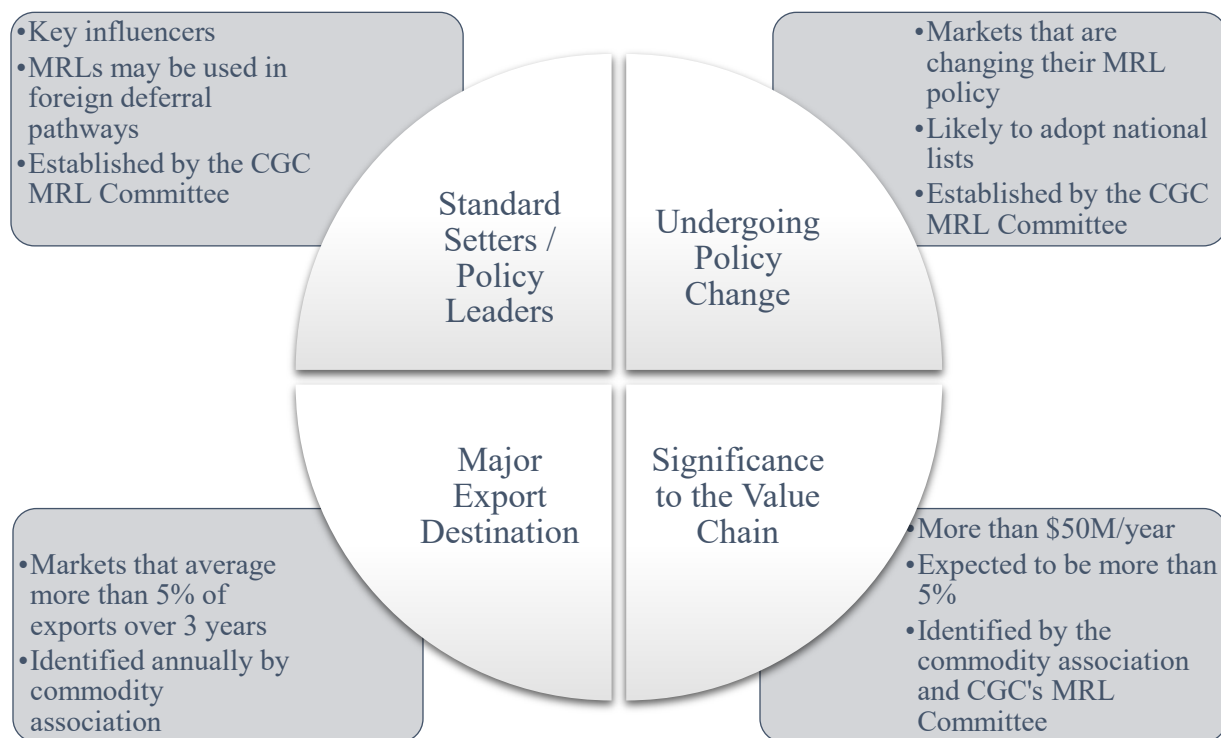


- Markets that are expected to be, as determined by consensus of the commodity MRL assessment committee, greater than 5% of total volume of Canadian exports in the subsequent marketing years.

Markets may only be added under this category based on agreement between the CGC MRL Committee and the individual commodity MRL Assessment Committee. The commodity MRL Assessment Committee should consider if a process control or other management practice can mitigate the MRL-related risk in a market being considered in this category.

A chemistry/crop use pattern that only has a missing or misaligned MRL in a Market of Significance cannot be categorized as “do not use.”

## 2. Markets of Interest





## Step Two - Pesticides of Interest

Step Two identifies chemistry/crop use patterns that will proceed to the final step of the assessment. This step is intended to eliminate chemistry/crop use patterns that present no/low risk of trade disruption from further assessment in Step Three. Only chemistry/crop use patterns with MRLs that are not established in Markets of Interest, or that may result in residues higher than an established MRL in a Market of Interest, will be subject to further assessment in Step Three.

It is important to recognize that all chemistry/crop use patterns reviewed have undergone a rigorous assessment by the Government of Canada that has determined them to be safe. While a chemistry/crop use pattern may present a risk of a trade disruption, the regulatory system in place in Canada ensures that it will not present a risk to human health and the environment.

Commodity association staff and MRL committees must collaborate with registrants to acquire appropriate and adequate information. Information that may come from product application trials and other technical data will be used to determine whether a product will be subject to further assessment in Step Three.

This policy requires reviewers to use the mean (average) residue observed for a given study for use in the blending factor calculator.

Priority shall be given to statistically relevant commercial field trial studies or export monitoring programs over registration residue trial data if there is a significant difference in the intended use pattern and/or divergence of results.

Should a registrant be unable to provide appropriate and adequate information for the assessment, commodity association staff will revert to publicly available data, including data submitted by the registrant to PMRA, EPA, or the European Commission, and may refer to other relevant sources of data.

Pesticides of Interest are identified annually by the commodity association's MRL Assessment Committee.

First, commodity association staff must identify:

1. Newly registered, or soon to be registered, chemistry/crop use patterns;
2. existing chemistry/crop use patterns undergoing amendment; and
3. all chemistries/crop use patterns that advanced to Step 3 of the assessment, in the previous year.

Second, chemistry/crop use patterns are excluded if there is no/low risk of trade disruption as defined by the following criteria.



- i) Chemistries/Crop Use Patterns with a Canadian MRL at or below 0.01ppm: In situations where residue levels, following label approved application, are not detectable, the PMRA assigns an MRL of 0.01ppm which is considered the Level of Quantification for enforcement. As such, where a Canadian MRL has been established at 0.01ppm, it is assumed that the risk of detectable residue is extremely low, and the chemistry/crop use pattern will be excluded from further assessment.
- ii) Chemistry/Crop Use Patterns with a Canadian MRL at or below the MRLs established in the Markets of Interest: When the Canadian MRL is at or below the MRLs established in Markets of Interest, it will be excluded from further assessment.

In circumstances where a chemistry/crop use pattern MRL has been approved by the Codex Committee on Pesticide Residues (CCPR) but not the Codex Alimentarius Commission, this policy shall consider a CCPR-approved MRL as equivalent to a CAC-approved MRL.

- iii) Chemistries/Crop Use Patterns exhibiting no residues: When a chemistry/crop use pattern does not present detectable residues, it will be excluded from further review.

For this to be the case, residues must not have been detected the relevant commodity in previous the previous growing seasons. Testing data from the registrant's field trial data, supplemented by subsequent commercial trial information and/or regulatory monitoring data (Canada Grain Commission or other), can be used to verify the absence of residues in a commodity. Should data from residue trials and monitoring systems be inconsistent or insufficient to determine whether residue levels exist, the chemistry/crop use pattern will be subjected to further assessment in Step Three.

- iv) Chemistry/Crop Use Pattern Products Applied to Limited Acres: Movement of grains through the bulk handling system may result in the dilution of residues, reducing the risk of residues being detected in export markets. Therefore, products expected to be applied to limited acres will be excluded from further review as residues are likely to be diluted as the grain moves through the bulk handling system.

The policy defines limited acres as the smaller of: less than 5% of the total acres planted of a given commodity in a subsequent growing season, OR 200,000 acres. Registrants are responsible for providing an estimate for the number of acres the chemistry/crop use pattern is likely to be used on. The registrant's estimate will be compared/substantiated for reasonableness against available market data for the crop-pest combination in question by the commodity association staff responsible for completing the worksheet.

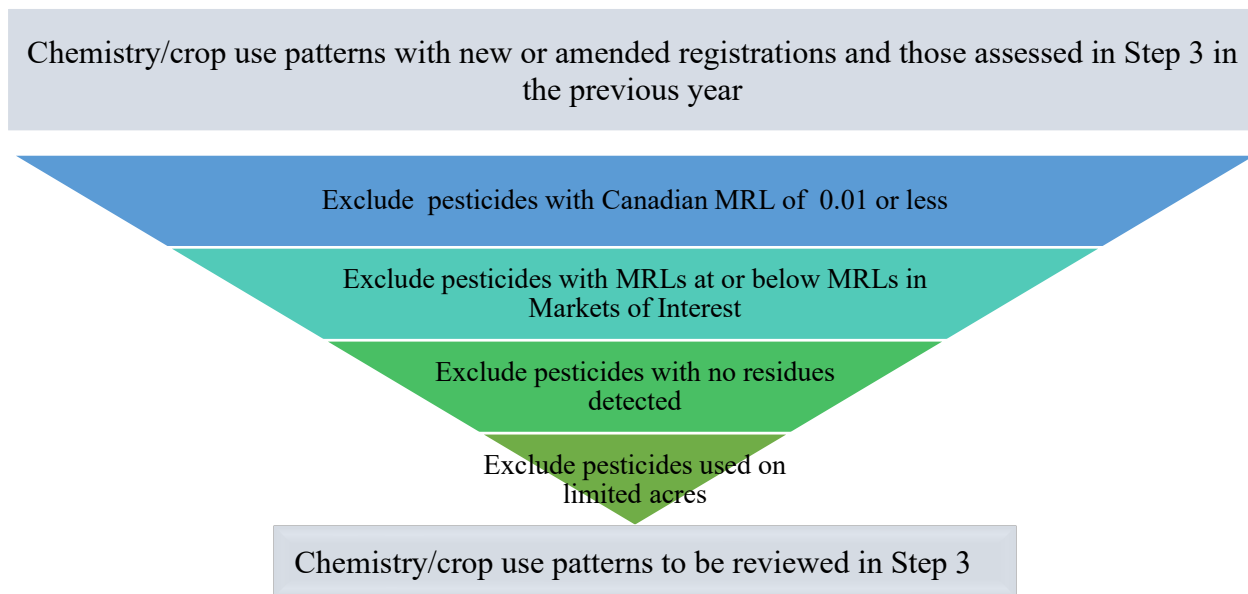


Exception for Chemistry/Crop Use Patterns That May Present a Trade Risk: There may be exceptions when a chemistry/crop use pattern that has been excluded by the previous criteria may still present an elevated risk of MRL-related trade disruption.

This could include chemistry/crop use patterns used on limited acres that are missing MRLs in Markets of Interest, or chemistry/crop use patterns that have not had residues detected in the past, but that have undergone a change in use pattern that may result in residues being detected in the future and other exceptional circumstances. In these exceptional circumstances when the chemistry/crop use pattern was excluded by the previous criteria, but still presents a possible MRL related trade risk, it will continue to the Step 3 assessment where it will be assessed against all the criteria in the policy.

Commodity association staff will consult with the registrant, grain shippers and other partners to determine if the chemistry/crop use pattern meets the threshold for this exception and should be further assessed.

Any chemistry/crop use pattern not excluded by one or more of the above noted four criteria, will be subject to further assessment in Step Three.





## Step Three - Categorization

Step Three categorizes a chemistry/crop use pattern based on the MRL-related trade risk. Where the risk of a trade disruption warrants a recommendation to restrict or limit the use of the chemistry/crop use pattern, a grower advisory will be issued.

This policy is based on the principle that it is neither commercially reasonable, nor in the best interest of the value chain, to strive for zero risk or to attempt no risk management to manage the risk of MRL-related trade disruption from either end of the continuum, be it zero or absolute risk.

Step Three of the assessment process is both qualitative and quantitative, requiring the concurrent assessment against various criteria that can influence the risk of trade disruption.

There may or may not be a single factor that determines whether the risk of MRL related trade disruption is high or low. As such, this policy requires reviewers to assess potential contributing factors grouped under three categories: product use and the likelihood of occurring residue(s); grain handling, shipping and processing; and end-use destinations/considerations.

The Worksheet in Annex 1 provides a template to be used to capture and analyze information available to the MRL Assessment Committee. Recognizing that this information may be market sensitive, the detailed data package will be seen only by the staff representative of the MRL assessment committee and not be shared with any other groups or individuals without the express permission of the registrant (who may request a Non-Disclosure Agreement to formalize this requirement). The specific data shared with the MRL assessment committee will be limited to information captured in the Summary Worksheet and Blending Calculator (Annex 1 and 2). Although the summary data in the Summary Worksheet and Blending Calculator will be viewed by the MRL assessment committee, it will not be distributed for use outside of the meeting.

Registrants agree to provide the following information (as a minimum requirement) to the designated staff member of the national association MRL assessment committee:

1. GLP, non-GLP and/or monitoring studies will be conducted at a labelled use pattern of interest.
2. Samples are to be collected over a 1-2 year time frame under conditions that are representative of the geography and climatic conditions for the crop being assessed consistent with PMRA or North American requirements.
3. Trials can be conducted in a one-year time frame, as long as geographic and climatic representation is sufficient (e.g., representing the expected area(s) of use or consistent with PMRA registration requirements).
4. Samples will be collected from approximately 8 trials depending on the consistency of the data.



5. If significant data variability exists, the upper limit of flexibility would be to provide data for up to the same number of PMRA trials required to approve the crop or crop grouping being assessed.
6. Report application information (date, rate, growth stage, adjuvants) and harvest information (date, PHI, shipment to lab)
7. The samples tested will be representative of the scale of the trial, including subsamples or blended samples, and will be analyzed by a lab experienced with the test item.
8. Registrants will report the number of samples  $>$  LOQ, as well as the minimum, maximum, average or mean values using the following values for non-detects:
  - a. If a valid LOD exists, use  $\frac{1}{2}$  LOD as the assigned value;
  - b. If an LOD is not available, but a valid LOQ exists, use  $\frac{1}{2}$  LOQ; and
  - c. Use  $\frac{1}{2}$  LOQ for non-quantifiable test results (i.e., data points between LOQ and ND).

Registrants agree to provide this information in time for the MRL assessment committees to reach categorization decisions by the January 31<sup>st</sup> timeline, although it is acknowledged that there may be extenuating circumstances from time to time (e.g. wet harvest) that could complicate timely provision of all data.

This policy requires the MRL Assessment Committee to review the information/outcome of the analysis and determine whether a consensus view can be achieved on the acceptability of the MRL-related trade risk.

Should the relevant commodity MRL Assessment Committee be unable to reach a consensus on the acceptability of risk, this policy requires the MRL Assessment Committee to apply the blending factor calculator, provided in Annex 2. The MRL Assessment Committees must first exhaust their review of the information to reach a consensus prior to resorting to the blending factor calculator for a categorization. Categorization of a chemistry/crop use pattern using the blending factor calculator must be supported by a qualified majority of the MRL Assessment Committee.

If a qualified majority decision cannot be achieved, the matter shall be referred to the CGC MRL Committee for decision. The staff representative of the national commodity association MRL assessment committee will share the detailed data package and the information in the Summary Worksheet and Blending Calculator with the staff representative of the CGC MRL committee. The CGC staff representative will then share the information in the Summary Worksheet and Blending Calculator with the committee. Prior to doing so, the CropLife members of the CGC MRL committee who are competitors to the company in question will recuse themselves and will neither participate in the discussions nor be able to view the information in the Summary Worksheet and Blending Calculator. In addition, the CGC MRL committee will not review the specific votes of the national commodity association MRL assessment committee that resulted in its inability to achieve a qualified majority. If a qualified majority decision of the CGC MRL



Committee cannot be achieved, the categorization must be referred to the CGC Board of Directors and resolved according to decision-making steps set out under CGC By-Laws.

While it is recognized that the policy aims to function on a consensus basis, outliers and extenuating circumstances can be expected from time to time that could paralyze the efficacy of the policy. It is expected that qualified majority provisions will be used only when necessary to break decision deadlocks, and only when best efforts to find consensus have failed. The policy defines a qualified majority as cases where all committee participants except for one agree; i.e., where one participant only is unable to agree to the decision(s) agreed to by all other participants. This is illustrated in the two scenarios below:

1. CGC MRL Steering Committee: a qualified majority of the steering committee is defined as one dissenting vote only. Note that even in cases where a qualified majority has been achieved, the majority participants may still decide to revisit or adjust the decision to see if full consensus can be reached.
2. National commodity association MRL assessment committee: it will remain the responsibility of the national association to determine the specific members and number of votes within its assessment committee (as long as it has at least one member from each value chain segment – defined under the ‘Implementation’ heading). It will also remain the responsibility of national associations to determine what constitutes a qualified majority of its MRL assessment committee. Each national association MRL assessment committee will be expected to notify the CGC MRL steering committee of its qualified majority definition as well as any changes to that definition.

The following is a description of the factors for consideration under three broad criteria categories that make up Step Three. The Committee will use the Worksheet template in Annex 1 to report the results.

#### 1. Likelihood and Extent of Potential Residue(s)

The primary test of risk is the likelihood of detectable residues at a level(s) greater than the enforcement levels established by the importing country. The likelihood of detectable residues can be influenced by the chemistry itself, timing of application, agronomic conditions, use pattern, available supply of the product, marketing/commercialization intentions (i.e. new use on an existing label) among other factors.

A registrant must collaborate to support those charged with the risk assessment process to arrive at a common and clear understanding of potential residues. This step provides the registrant the opportunity to provide additional information they feel is relevant to the assessment, in advance of the meeting of the MRL Assessment Committee and any decisions related to risk. Having quality information available to the MRL Assessment Committee risk assessment process will increase the likelihood that the MRL Assessment Committee will arrive at the most accurate assessment of the chemistry/crop use pattern.



A registrant may require the MRL Assessment Committee to enter into a Non-Disclosure Agreement to share the results of residue studies. To protect commercially sensitive data/information, it may be necessary for certain information to be redacted or summarized.

a) Frequency and Quantity (concentrations) of Residues

The information provided by a registrant when registering the chemistry in Canada includes frequency and quantity of residues that are detected when the chemistry is applied at the recommended label rate and at the pre-harvest interval. The registrant is required to submit data based on the highest application rate and shortest pre-harvest interval. This is in effect the worst-case scenario and does not represent the likely application rate and pre-harvest interval that will be seen with grower use. Registrants are also likely to have residue data from other trials that they may be able to provide. MRL Assessment Committees should be aware of the scenarios the residue data was generated under when considering residue data or information.

Monitoring programs such as the Canadian Grain Commission (CGC) Grain Monitoring Program (GMP) can also provide residue data for consideration. The CGC GMP samples export shipments of most commodities every year and tests for a broad spectrum of chemistry residues. Results from multiple years of testing may be required to serve as a statistically relevant representation of residue levels in export shipments. A more limited sample of CGC GMP datasets may also be relevant as it will, at minimum, provide evidence of the potential likelihood of residues and as such should form part of the assessment process even at its early stages.

b) Supply of the Product

Chemistry/crop use patterns that have reached Step Three of the assessment process are likely to be applied to more than 5% of the total seeded acres or 200,000 acres of a grain, whichever is greater. This threshold is set to trigger further assessment as the risk presented to the value chain may vary depending on supply and geographical distribution of the product being assessed. For example, a chemistry/crop use pattern presenting with detectable residues may only be made available for application in small volumes across Western Canada or may be limited to certain geographical distribution within Canada. This may allow residues to be diluted and/or concentrated within the bulk handling system. The MRL Assessment Committee will benefit from giving registrants, retailers, handlers, exporters and other value chain stakeholder the opportunity to share information as it relates to projected amount of crop that may be treated as well as the potential for geographical concentration.





c) Use Pattern/Timing of Application

Residue risk can vary greatly depending on use pattern and/or timing of application. Labels carrying multiple use patterns can impact the risk profiles for a single product, some of which may be acceptable and some not (e.g., pre-emergence vs. early season post-emergence, vs. late season post-emergence vs. pre-harvest). To accurately understand the potential for residues to be detected, it is important to understand the likelihood of the chemistry being applied at the various label approved use patterns which may present varying risk profiles. The MRL assessment committee may adjust its assessment of the likelihood of residues being detected if the registrant does not market the chemistry for all use patterns for which it has registration. The registrant may be required to demonstrate the controls it has put in place to ensure that the chemistry is not applied for the use pattern for which it is not being marketed.

d) Extent of Pest Pressure

When determining the risk associated with any chemistry/crop use pattern, the individual commodity MRL Assessment Committee should consider the extent to which growers will be challenged by pest pressure and the extent to which growers will likely benefit from having access to the chemistry/crop use pattern. Additionally, as part of the risk assessment process, the Assessment Committees should consider the severity of an applicable pest and the availability of alternative protection products.

2. Handling, Shipping and Processing

a) Regional Concentration of Use

Chemistry/crop use patterns that are intended to be used on a regionally concentrated pest pressure can influence and increase the risk of detecting a residue in sensitive export markets. Residues may not be effectively diluted within the handling and shipping system if there is regionally concentrated use. The lack of dilution may be due to the use of unit train shipping which can represent the entire volume of a delivery onto a single vessel hold/vessel, or shipping by truck to the US. The MRL Assessment Committee should consider location of the regionally concentrated use, likely destination for the treated grain, domestic processing facilities that may source grain from the specific area where growers would use the chemistry/crop use pattern, including available alternatives and their effectiveness in addressing the pest pressure.

If a chemistry/crop use pattern meets the regionally concentrated criteria, the Blending Factor Calculator will need to be adjusted to reflect the percent of crop that is treated in the limited region. More information is available in the Blending Factor Calculator Annex.



#### b) Bulk Grain Handling

Canada's bulk handling system collects and channels grain from thousands of farmers through hundreds of elevators to relatively few ports or rail links, to gain access to foreign markets. While this funneling of product can serve to reduce risk by diluting the residues as grain is commingled from field to export position, "optimal dilution" may not always be achieved, resulting in increased residue risk.

The blending factor calculator in Annex 2 is a tool to determine at which levels reasonable residue level concentrations may be achieved. This is done by considering established MRLs in foreign markets. The calculator is not intended to be applied as the sole determining factor for risk mitigation. While it may inform the assessment, it should not be the sole influence in how an MRL Assessment Committee arrives at its decision but rather one of many factors that should be considered in determining acceptability of risk.

#### c) Containerized Shipments

Grains shipped in containers present their own risk profile. The management of containerized shipping, which often includes production contracts, segregation and processing of the grain (e.g., cleaning, sorting, etc.), can provide a more direct connection between grower and exporter. This can contribute to enhanced residue risk mitigation in foreign markets.

Recognizing that container shipping results in a unique ability to manage the potential for MRL related trade disruptions, chemistry/crop use patterns should be categorized as "Be Informed" within applicable advisories when most of the crop is traditionally shipped by container and MRLs are missing or misaligned in major markets.

#### d) Location of Pesticide Use

Historically, the physical location of a grain elevator may have resulted in limited access to destination markets, where it was not connected to a port/coast or rail link route. This potentially restricts the elevator's access to specific export markets and limits or exaggerates the risk of MRL-related trade disruption. However, with freight routes and supply chain logistics becoming more efficient and complex over time, grains now move longer distances. As a result, most Canadian ports can serve most markets around the world, thus making it less reasonable to apply the physical location of a grain elevator as a residue risk mitigation point.



### 3. Destination and End-Use Considerations

#### a) Regulatory System in Export Market

The regulatory system in an export market can greatly influence the risk presented to the Canadian grain industry. It is important that there is a good understanding of the regulatory systems, including their capacity for sampling, testing and monitoring for pesticide residues in the Markets of Interest. Trade Commissioners, Agriculture and Agri-Food Canada's Market Access Secretariat, and exporters may provide additional details/intelligence specific to the regulatory systems in place, as well as systems of liability and consequences in the case of non-compliance.

The acceptability of risk is influenced by liability and consequences of a non-compliance. In Markets of Interest, where regulatory systems include significant financial liability and stringent consequences for noncompliance, the risk to the value chain is greater, and the threshold of acceptable risk reduced. Therefore, a missing or misaligned MRL in a Market of Interest with strict enforcement measures may result in a more restrictive categorization. The value chain's experience with compliance matters should inform the MRL Assessment Committee's views on acceptability of risk.

#### b) Commercial Compliance

Exports to markets without state regulatory and monitoring regimes may present with residue risk if commercial contracts set out MRL compliance requirements with certain MRLs. To demonstrate a requirement for commercial compliance, exporters may share examples of commercial arrangements that require verification of the absence of certain pesticide residue levels. However, this commercial requirement may depend on the buyer and/or the destination country and it is not consistent from transaction to transaction. When possible, exporters must provide available information and intelligence in this regard to the MRL Assessment Committee, to assist with the broader understanding of the risk.

#### c) End Use

A grain product's intended use can influence residue risk to the value chain. Processing steps may also contribute to the reduction and/or elimination of residue risk and should be considered in the assessment. Historically, feed markets may have been less sensitive to residue risk, however with the modernization of many food and feed regulatory systems around the world, there can be little if any risk differentiation between human and animal food regulatory limits in some export markets. As such, intended use should form part of the assessment where the risk is relevant to the chemistry/crop use pattern under assessment.



## Categories

The risk assessment's outcome is the categorization of a chemistry/crop use pattern (i.e. green, amber or red). Chemistry/crop combinations having multiple use patterns may be issued more than one risk profile depending on the outcome of the risk assessment related to each use pattern. For example, a chemistry registered for pre-emergence and late season post-emergence application could be categorized having a green risk profile when applied as a pre-emergent AND a red risk profile when applied as a late season post-emergent.

Pesticides can include multiple chemistries that can be registered for multiple use patterns on multiple crops.

Each chemistry/crop use pattern should be assessed, reviewed and categorized independently.

This may result in a single chemistry receiving multiple green, amber or red categorizations depending on the crop and use pattern.

Chemistry/crop use patterns that present with low residue of risk are considered “green”. This risk profile does not carry a grower advisory. While this category includes chemistry/crop use patterns which may not have cause to be excluded at Step Two of the risk assessment process, the extent to which residue risk has been identified has been mitigated insofar as it is deemed reasonable to the value chain. While the MRL Assessment Committee(s) may make recommendations specific to risk management strategies for this chemistry/crop use pattern, it will not be accompanied by a grower advisory.

Chemistry/crop use patterns that present a high likelihood of trade disruption (i.e. due to high risk of residue or missing MRL in a Market of Interest) are considered “red”. This risk profile will be accompanied by a “do not use” grower advisory and the chemistry/crop use pattern must not be commercialized or accepted by the value chain.

Where a chemistry/crop use pattern presents a medium likelihood of trade disruption, risk must be managed with appropriate controls (i.e. processing, segregation, geographic limitations). This may result in exporters assuming differing risk tolerances. In this case, the chemistry/crop use pattern is assigned an “amber” risk profile and a grower advisory warning those considering product use to “Be Informed” as grains treated with the chemistry/crop use pattern may be non-compliant with regulatory import requirements in certain export markets.




In the “Be Informed” category, grain exporters will need to make risk-based decisions as to whether they will or will not accept grain(s) treated with the chemistry/crop use pattern in consideration of the export markets in which they participate. Chemistry/crop use patterns used on crops mainly exported in containers are automatically assigned the “Be Informed” advisory;



however the handler may also make the same “do not use” risk-based decision depending on their operations.

Recognizing the uncertainty that may result from the “Be Informed” category, this classification should be reserved for chemistry crop-combinations that are truly amber (neither green nor at a red risk profile). A chemistry with multiple use patterns may receive multiple categorizations. The amber classification is not intended to “split the difference” in instances where some use patterns are green and others are red. For example, a chemistry/crop use pattern has been deemed low risk for pre-emergence use and high risk for pre-harvest use, the MRL Assessment Committees should avoid categorizing the chemistry as “amber” and should instead apply the appropriate category to each the individual use pattern.

### Summary of Categorization

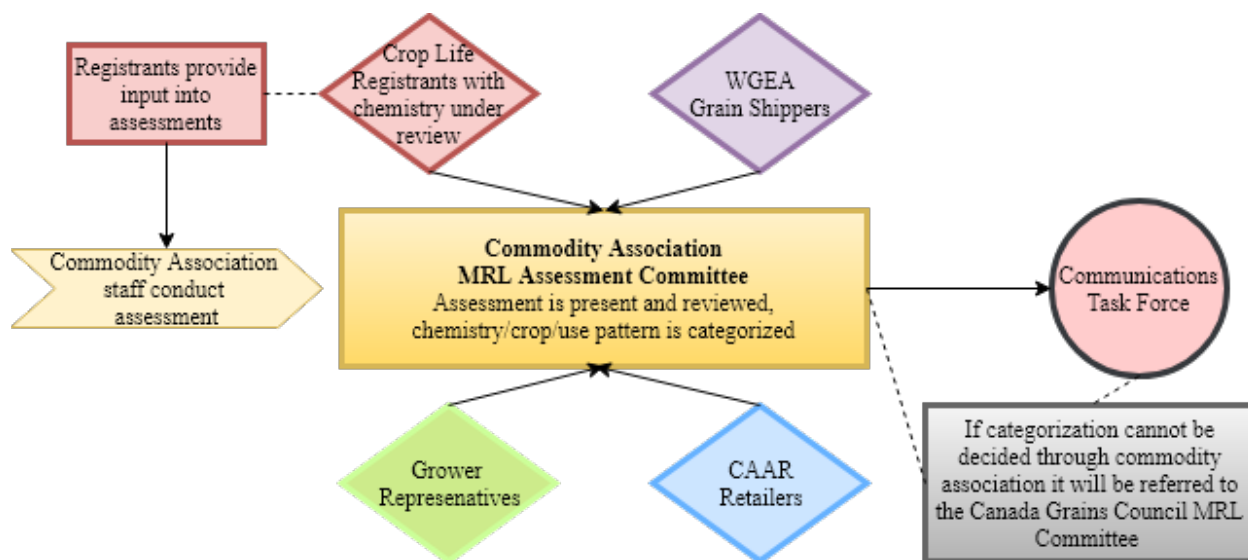
<p>No recommendation</p> 	<ul style="list-style-type: none"><li>• Risk of MRL related trade disruption is acceptable:</li><li>• Low likelihood of problematic residues at port</li><li>• MRLs in standard setters/major export markets</li><li>• Chemistry/crop use pattern to be accepted by all grain exporters</li><li>• Not included on grower advisories</li></ul>
<p>Be informed</p> 	<ul style="list-style-type: none"><li>• Treated grains may not be accepted by some exporters</li><li>• Grains shipped in containers where a residue may result in trade risk</li><li>• Chemistry/crop use pattern can be commercialized</li><li>• Growers advised to contact grain buyer before treating grain</li></ul>
<p>Do Not Use</p> 	<ul style="list-style-type: none"><li>• Elevated risk of MRL related trade disruption</li><li>• Chemistry/crop use pattern not accepted by all grain exporters</li><li>• Chemistry/crop use pattern not to be commercialized and sold</li><li>• Growers advised to not use chemistry/crop use pattern</li></ul>



## Implementation:

The relevant national commodity associations are responsible for implementing and maintaining compliance with the Market Assessment of Pesticide Use Policy. As each association operates under its own unique governance structure, associations must specify whether its Board of Directors or a committee struck within the governance of the organization will maintain responsibility for the MRL risk assessment process and the corresponding categorization of chemistry/crop use pattern within applicable risk profiles.

Staff of the national commodity associations are responsible for conducting initial and annual risk assessments including the completion of the worksheet for each chemistry/crop use pattern assessed in Step 3. Staff are charged with collaborating with registrants to acquire necessary residue data and/or pertinent information that will inform the assessment. Additionally, staff are responsible for updating the Major Export Markets within the Markets of Interest list, based on updated trade statistics. National associations agree to make best efforts to ensure that its MRL assessment committee staff members remain in those positions for at least 2-3 years in order to provide continuity and the benefit of established working relationships. Staff must present their completed assessment to the MRL Assessment Committee, which shall include representatives from across the value chain. This will include a representative of CropLife Canada and registrants with chemistry/crop use patterns under assessment, the Western Grain Elevator Association and any other grain exporter member of the national commodity associations, a representative from Canadian Association of Agri-Retailers and representation from the relevant grower commodity association(s). Each national commodity association will be responsible for the specific number(s) of representatives and votes from each of these value chain segments as well as its own members/stakeholders.





If consensus cannot be reached on determining residue risk and the MRL Assessment Committee must vote on the categorization of a chemistry/crop use pattern, the association is responsible for ensuring that votes are reasonably proportional along the value chain.

If the commodity association MRL Assessment Committee is unable to agree on the categorization of a chemistry/crop use pattern, the matter will be referred to the CGC MRL Committee for review and categorization.

Assessments of the chemistry/crop use patterns identified under this policy are to be conducted at least annually, with decisions related to the categorization of each chemistry/crop use pattern made no later than January 31<sup>st</sup> of each calendar year. Should new data/information/intelligence become available following the conclusion of the annual review, the MRL Assessment Committee may reconvene by decision of the national association staff representative of the committee. The Committee will assess whether the new data/information/intelligence warrants change to that categorization. If the categorization is revised, the decision must take place well in advance of the application timing of the crop protection product and no later than May 1<sup>st</sup> of each calendar year. An exception will be made in the case of a crop protection product that is to be applied late season and/or pre-harvest. In these cases, a decision is required no later than July 1<sup>st</sup>.

A communications task force led by the commodity associations, with representation from the segment associations, will roll out information to the value chain, detailing all the various national commodity MRL Assessment Committee decisions, in advance of spring planting season. Annex 3 provides further details related to this communications process.

The CGC MRL Steering Committee will conduct an annual review of this policy in its entirety. The Steering Committee shall have the authority to revise the policy, provided there is consensus on any amendments. The review process will provide for opportunity to update and modernize the policy as necessary, and to be informed of the experiences the commodity associations have had in implementing this policy. The blending factor calculator is to be assessed and/or amended by the CGC MRL Committee annually.



## **Adherence to the Policy**

While the Canada Grains Council Market Acceptance of Pesticide Use Policy is voluntary and not mandatory under the force of law, Canada Grains Council members, and the members of its members, are expected to adhere to the outcomes of the annual assessments.

All stakeholders in the value chain are expected to respect red and green risk categorizations and are individually responsible for applying the appropriate actions specific to chemistry/crop use patterns categorized as amber. Shipper and exporter stakeholders are required to be transparent and communicate their intended actions related to amber categorizations, to the relevant national commodity association(s).

The Canada Grains Council encourages its members to apply all tools available to them, such as codes of conduct and association membership policies to encourage their members to adhere to the policy. Adherence to the policy includes collaborating and providing appropriate information necessary for the risk assessment process, in addition to respecting the outcome of such risk assessment activities.

For clarity, if a chemistry/crop use pattern is categorized as “do not use,” any product treated with this chemistry should not be accepted for delivery by an Exporter. Similarly, if there is a “no recommendation” categorization, there should be no restrictions on acceptance of grain treated with such product by an Exporter.

Any member organization of the Canada Grains Council, or member organization of a member of the Canada Grains Council, that does not adhere to the policy and/or participate in/contribute to the MRL risk assessment process, is required to provide signed written notice of their intentions directly to the Canada Grains Council and withdraw from the policy. Such notice is to include the reason(s) for withdrawal. Best efforts shall be made to provide notice between July 1<sup>st</sup> to September 1<sup>st</sup> in order to avoid undue disruption of prior year decisions and processes within the policy.

Despite the significant levels of deliberation, detail and consultation incorporated into the development of the policy, it is recognized that additional adjustment will be needed once tested in a live environment with actual market conditions, growing conditions, pesticides, and handling realities. It is also recognized that the policy will have a higher level of success the more that all sectors and major participants remain at the table during this evolutionary process. Therefore, rather than excluding a non-adhering company/association from subsequent MRL risk assessment activities and deeming it ineligible as a participant/contributor on the CGC MRL Steering Committee, the non-adhering company/association will be invited to continue to participate in the CGC MRL Steering Committee as an observer.

It is not beneficial to the long-term interests of the grain value chain to formally exclude non-adhering parties in the initial stages of implementation. In the first years of the implementation





of the policy, stakeholders should continue to be at the table to work through issues and adjust the policy as necessary. Beyond the first years, the practice of having non-adhering parties continue to participate as observers may be revisited during the annual review process. Non-adhering parties will be invited as non-voting participants rather than observers during the annual review process.

Should an adhering member to the policy wish to register dissent with the risk categorization of a specific chemistry/crop use pattern, in any given calendar year, they shall provide signed written notice of their dissent directly to the Canada Grains Council and the relevant commodity association. Any notice of dissent received by the Canada Grains Council shall be reviewed and considered by the CGC MRL Committee.

Members that provide a notice of dissent are still expected to adhere to the categorizations made through the commodity association review process, including the decision for which the notice of dissent has been made.



## **Competition and Conflict of Interest**

This policy is intended to safeguard and expand export opportunities for Canadian grains.

All participants contributing to the assessment process, conducted pursuant to this policy, are obligated to conduct the assessment in accordance with the principles set out in this policy, and are prohibited from using the assessment process as an attempt to gain a competitive advantage over a competitor or to reduce competition between competitors, in any way.



## **Annex 1 - Worksheet**

To provide an overview of all the criteria under acceptability of risk, a template risk assessment worksheet has been prepared. The worksheet is to be completed for each pesticide identified as a pesticide of interest and shared with the committee responsible for assessing the acceptability of risk. The worksheet is intended to provide the working group with an objective understanding of the facts related to a chemistry/crop use pattern and the Markets of Interest associated with the applicable grain(s), so that an objective decision regarding the acceptability of risk can be made.



<b>Risk Assessment Worksheet</b>			
Commodity			
Product Trade Name:			
Active Ingredient:			
Registered Use:			
MRL in Canada (ppm):			
MRL in Markets of Interest (ppm):			
CODEX	-		-
US	-		-
Japan	-		-
EU	-		-
China	-		-
South Korea	-		-
<i>Likelihood and extent of potential residues</i>			
Residues detected: (source and level)			
Pesticide Supply:			
Use pattern:			
Pest Pressure:			
<i>Handling and Shipping</i>			
Regional Concentration:			
% shipped bulk:		% shipped in containers	
Location of Use:			
<i>Destination and End-Use Considerations</i>			
Regulatory System			
Commercial Compliance			
End Use			
Blending factor: (calculator)			
Mitigation:			
Other Notes:			
Recommendation:			
Decision:			



## Annex 2 – Blending Factor Calculator

If the MRL Assessment Committee cannot arrive at a consensus on the categorization of the risk, the blending factor calculator is to be used to aid in the risk categorization of the chemistry/crop use pattern.

The user must input into the calculator the percent of expected seeded acres to be treated with the applicable chemistry, as well as the observed residue level(s) and the foreign MRL(s) of concern. In the case of a missing MRL, 0.01ppm shall be used. The calculator's objective is to compare the dilution necessary to maintain compliance with the foreign MRL(s), based on the percent of seeded acres that would be treated with the chemistry.

If residue data is not available from “real world” field trials and regulatory data must be used, a regulatory safety factor must be applied recognizing that regulatory data is produced assuming “worst case” scenarios.

The calculator is based on the principle that there must be an adequate supply of untreated grain available within the supply chain, to dilute the volume of grain(s) assumed to have residues at the level of the field trials to levels consistently below that of the foreign MRL(s) of concern. The calculator assumes that dilution takes place regardless of the drawing area from which the grain(s) are collected from for delivery to an export position. The higher the blending factor, the greater the likelihood that residues will successfully be diluted below applicable foreign MRL(s). Therefore, a chemistry/crop use pattern with a blending factor of more than 3 would be categorized as green, one with a blending factor less than 1.5 will be red and blending factors in between will be categorized as amber.

When the chemistry/crop use pattern is intended to be commercialized to address a regionally concentrated pest pressure, the inputs into the Blending Factor Calculator should be based on the percent of acres that will be treated in the limited region. This is done to take into account that the dilution effect may be negated as treated grain(s) of that same commodity are collected and delivered to an export position or a domestic processor without being commingled with other grain(s) of that same commodity. Commodity association staff are responsible for working with members of the MRL Assessment Committee, to develop an estimate of the percent of acres that are expected to be treated with the chemistry in the regionally concentrated area.

The calculator is available in excel format from the Canada Grains Council. The following is an example of how the calculator functions.



<b>Blending Factor Calculator</b>			
<b>Real world residue data</b>		<b>Regulatory residue data</b>	
Acres treated with chemistry (%)	30%	Acres treated with chemistry (%)	30%
Observed residue level (ppm)	0.1	Regulatory residue level (ppm)	0.1
Foreign MRL (ppm)	0.01	Regulatory safety factor	5
Required dilution	10%	Foreign MRL (ppm)	0.01
		Required dilution	50%
Blending factor	0.33	Blending factor	1.67
Categorization			
Green >3			
Amber 1.5 - 3			
Red <1.5			

Results from residue trials based on likely use patterns should be used where possible.

When the chemistry/crop use pattern is intended to be commercialized to address a regionally concentrated pest pressure, the inputs into the *Acres treated with chemistry (%)* should be based on the percent of acres that will be treated in the limited region.

If the only residue data available is from regulatory submissions, then a regulatory safety factor should be applied recognizing that regulatory trials consider a "worst case" scenario. If agreement cannot be reached on what the safety factor should be, MRL Assessment Committee shall use 5.



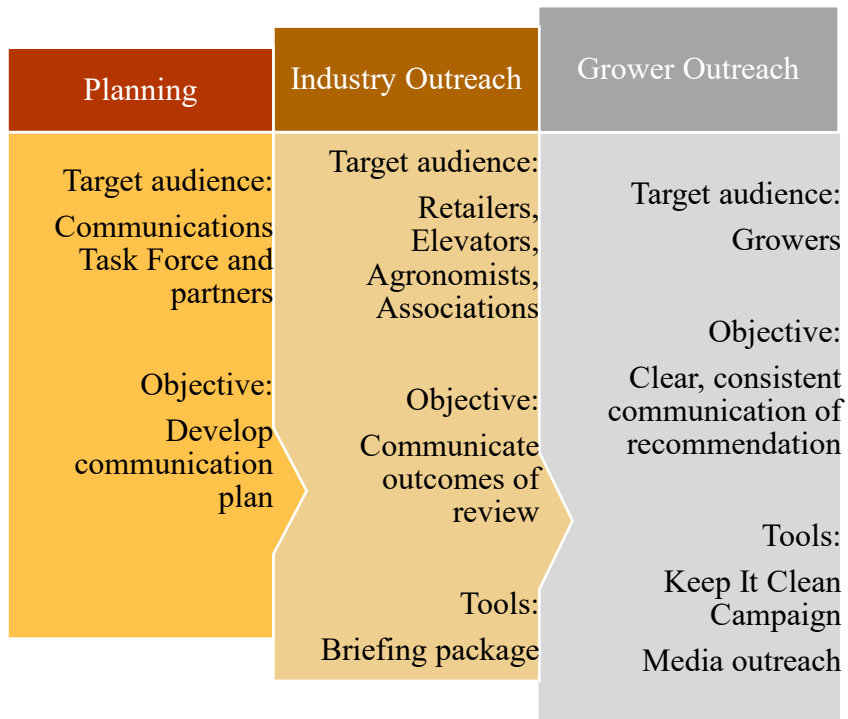
### Annex 3 – Communications Guidelines

The guidelines below are intended to serve as a recommended set of best practices. Associations are encouraged to use as many avenues as possible to communicate the outcomes of the risk assessment and highlight the same within grower advisories distributed throughout the industry.

Communications are to be led by the commodity associations, who are also responsible for roll-out of the awareness campaigns to encourage grower compliance with the appropriate MRL risk mitigation measures. This may be through ‘Keep It Clean’ or other campaigns that can reach growers in a timely manner.

The recommendations outlined below are intended to aid with communicating the outcomes of risk assessments as undertaken within the context of the Market Acceptance of Pesticide Use policy, and not for broader aspects of certain campaigns (i.e. Keep it Clean). While these campaigns may be applicable to this policy they may also extend beyond the scope of this policy.

Building on the structure already in place, a joint commodity association task force is responsible for communications. Where appropriate, this committee will engage the segment associations and other partners in the planning and execution of communications strategies.



**Strategic Objective:**



- Highlight grower advisory
- Reinforce that pesticides are safe
- Increase awareness of the need to ensure foreign market acceptance of pesticides
- Encourage compliance with label directions and use of good agricultural practices

**Key Messages:**

- Canada has a strict regulatory system that ensures food is safe and the environment is protected when a crop protection product is registered for use.
- Using a crop protection product that is registered in Canada, but not approved in an export market, can jeopardize Canadian crop exports.
- Growers are advised to:
  - Do Not Use: XXX; OR
  - Be Informed: XXX
- Growers should consult with their grain buyer before using these products.
- Go to [www.keepingitclean.ca](http://www.keepingitclean.ca) for more information.

**Roles and Responsibilities**

Commodity Associations	<ul style="list-style-type: none"> <li>• Lead development of the communications plan</li> <li>• Lead the Communications Task Force</li> <li>• Conduct outreach to industry stakeholders including grower groups, agronomists and other stakeholders</li> </ul>
Value Chain Segment Associations	<ul style="list-style-type: none"> <li>• Support the Communications Task Force and Keep It Clean campaign</li> <li>• Communicate outcomes to their members</li> <li>• Support outreach to growers</li> </ul>
MRL Communication Task Force	<ul style="list-style-type: none"> <li>• Develop communications products and oversee roll-out</li> <li>• Identify industry partners to engage during the roll-out</li> </ul>
Grower Groups	<ul style="list-style-type: none"> <li>• Reinforce importance of Keep It Clean</li> <li>• Communicate outcomes to growers</li> </ul>
Retailers, Agronomists, Merchandisers, other partners	<ul style="list-style-type: none"> <li>• Communicate outcomes to growers</li> <li>• Provide advice and direction to growers on how to respect outcomes of the policy</li> </ul>

**Roll-Out:**

November	<ul style="list-style-type: none"> <li>• Initial review begins</li> <li>• Communication Task Force meets and begins to develop products</li> </ul>
December	<ul style="list-style-type: none"> <li>• Communication products approved by Task Force</li> <li>• Send briefing products to industry partners</li> </ul>
January	<ul style="list-style-type: none"> <li>• Public announcement of categorizations</li> <li>• Launch of marketing and grower outreach campaigns</li> </ul>





	<ul style="list-style-type: none"> <li>• Provide generic messaging on Keep It Clean if communication products are not finalized</li> </ul>
February	<ul style="list-style-type: none"> <li>• Webinars, technical briefings offered to retailers/agronomists</li> </ul>
March	<ul style="list-style-type: none"> <li>• Direct mail to growers</li> </ul>
January – August	<ul style="list-style-type: none"> <li>• Ongoing outreach to growers</li> <li>• Outreach and campaign if grower advisories are revised based on new information or newly received MRLs.</li> </ul>
September - November	<ul style="list-style-type: none"> <li>• Reinforce importance of Keep it Clean during harvest in advance of decisions being made for following planting season</li> </ul>

### Communication Products:

Communications products will be developed by the commodity associations with input from other members of the Communications Task Force.

Where possible and appropriate, communications products should highlight the broad support the policy garners from other associations (e.g., Canada Grains Council, CropLife Canada, WGEA, CAAR, etc.).

Product:	Audience	Description
High-Level Briefing	Media, Value Chain	Overview of the challenges with international regulatory misalignment and the potential for trade disruption.
Briefing Package	Retailers, Elevators, Agronomists, Grower Groups	Technical document to inform partners of outcomes of the assessment and provide details on how to engage growers
Press Release	Media, Value Chain	Announce outcome of the review, encourage all partners to respect the recommendations
Webinar	Value Chain	Provide overview of grower advisory and justification for categorization of pesticides
PowerPoint	Commodity Associations	Template that can be used by associations during meetings with growers and other partners to provide an overview of the decisions and advisories
Website	Value Chain	Updated regularly, should include in-depth information on the assessment process and outcomes. It should also provide details on the associations and companies that support the assessment process.
Social Media	Growers	Coordinated messaging and products directing growers towards <a href="http://www.keepingitclean.ca">www.keepingitclean.ca</a>



Direct Mail	Growers	Post card highlighting pesticides of concern, directing growers to <a href="http://www.keepingitclean.ca">www.keepingitclean.ca</a> or other partners for more information
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