



## Ontario Agri Business Association

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April 3, 2019

Mr. Andrew Graham  
Ontario Soil & Crop Improvement Association  
1 Stone Road West – 1<sup>st</sup> Floor  
Guelph, Ontario  
N1G 4Y2

Dear Mr. Graham:

Further to your letter addressed to Richard Smibert, President of the Ontario Agri Business Association (OABA) outlining your organization's concerns with grain elevator DON testing from the 2018 corn crop, I would like to take this opportunity to respond and update OSCIA.

The three OSCIA resolutions you have presented from Middlesex, Oxford and York are correct in identifying some of the challenges that faced all segments of the grain industry in dealing with high DON levels in the 2018 corn crop. That being said, it is important to understand that the challenges of DON in the 2018 corn crop do not only impact farmer deliveries of corn – these same challenges extended throughout the entire corn value chain. In receiving the 2018 corn crop, Ontario grain elevators were exposed to significant financial and operational risks associated with variable DON levels as they purchased and moved corn through the value chain. Over the course of the 2018 harvest, it is estimated that the Ontario grain industry (elevators, feed mills and corn processors) spent in excess of \$6 million to test for DON in corn during the 2018 corn harvest with the objective of ensuring that both sellers and buyers were being treated fairly.

It should be noted that a primary point of variability associated with DON contamination within the 2018 corn crop occurred in the field and was impacted by environmental conditions (including rainfall, humidity, lingering dews, foggy mornings, temperatures), and further influenced by a number of farmer-based decisions (including hybrid selection and the use of fungicides). Once the extent of high DON concentrations was fully identified at the beginning of harvest, the Ontario grain elevator industry responded by mobilizing "DON quick test programs" to monitor intakes of corn and effectively manage the financial and operational risks of receiving high levels of DON. In a very short period of time, grain elevator operators were pressed to source DON quick test technology and train elevator receiving staff on the instructions for testing as established by the firm providing the quick test kit. It should be noted that several different "DON Quick Tests" were used by the grain industry – each with a specific methodology. During the harvest period, OABA also distributed two "Member Alerts" and presented a webinar to provide guidance to the membership on sampling and testing. Copies of the two "Member Alerts" are attached to this letter for your review.

Following harvest, OABA partnered with OMAFRA, the University of Guelph – Ridgetown Campus and Grain Farmers of Ontario to establish a Mycotoxin Research Coalition. In co-operation with the grain elevator sector, the coalition assessed the accuracy of quick tests used by the trade during the 2018 corn harvest. Evaluation of the test kit results at elevators revealed that they were not considered

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a major source of variation when following the protocols and directions provided by the test kit companies. Probe samples (vs. tailgate) were also less of a variable than expected, with a two-kilogram sample from four probes per truck equivalent to a tailgate sample.

The Mycotoxin Research Coalition continues to conduct further research related the preparation of the corn sample for DON quick testing. A key source of variability is determined to be subsampling and the grinding process. Dr. Schaafsma is recommending that standardized training be developed on sample preparation, and that a two-step grinding process be utilized. Implementation of this recommendation will be considered by elevator operators. In support of these findings, OABA has conducted a webinar on grain sampling, and Dr. Schaafsma recently made a presentation at our annual operations meeting. As further research is being conducted, OABA and will continue to communicate findings/recommendations to the grain elevator membership.

The high DON concentrations experienced by the industry during the 2018 corn harvest were unprecedented, and in large part, unexpected. In this regard, OABA continues to support the use (and possible enhancement) of OMAFRA's annual pre-harvest corn survey as an early indicator of potential DON problems.

OABA would also submit that corn growers must also accept a primary responsibility to implement prevention strategies for mycotoxins in corn. The March 2019 issue of Ontario Grain Farmer includes an article on "Preventing DON in Corn – Best Management Tips for 2019".

In summary, OABA would submit that the Ontario elevator industry did the very best job possible in receiving, testing and marketing a highly variable and challenging corn crop in 2018. When it comes to DON testing, the elevator industry will continue to implement new technologies, practices and protocols based on credible research and science with the overall objective of ensuring fairness to both buyers and sellers of Ontario corn.

Yours truly,

ONTARIO AGRI BUSINESS ASSOCIATION



David Buttenham  
Chief Executive Officer

Cc: Richard Smibert, President, OABA  
The Honourable Ernie Hardeman, Minister, OMAFRA  
Dr. Franco J. Vaccarino, University of Guelph  
Gino Castonguay, Canadian Grain Commission  
Barry Senft, GFO  
Crosby Devitt, GFO  
Grain Section Committee, OABA

# OABA MEMBER ALERT



*This Member Alert is being distributed to all OABA Regular and Branch Members in the Crop Inputs, Grain & Feed Sections.....*

October 19, 2018

## Potential for High Concentrations of VOMITOXIN in 2018 Ontario Corn Crop

Early corn harvest reports from the OABA membership and the results of OMAFRA's annual pre-harvest corn survey are indicating the potential of high concentrations of vomitoxin in the 2018 corn crop. There are certain geographical areas within the province reporting high levels of vomitoxin in their early farmer-deliveries.

The purpose of this "Member Alert" is to ensure that all OABA members are aware of the issue and are taking the necessary steps to manage the operational, safety and financial risks with the potential of high vomitoxin levels in the 2018 Ontario corn crop.

Figure 1 – OMAFRA Corn ear mould and vomitoxin (DON) survey sampling locations and results from **grower fields** in 2018. Sample collection date (September 21-28, 2018). Source: OMAFRA with regional analysis by OABA.

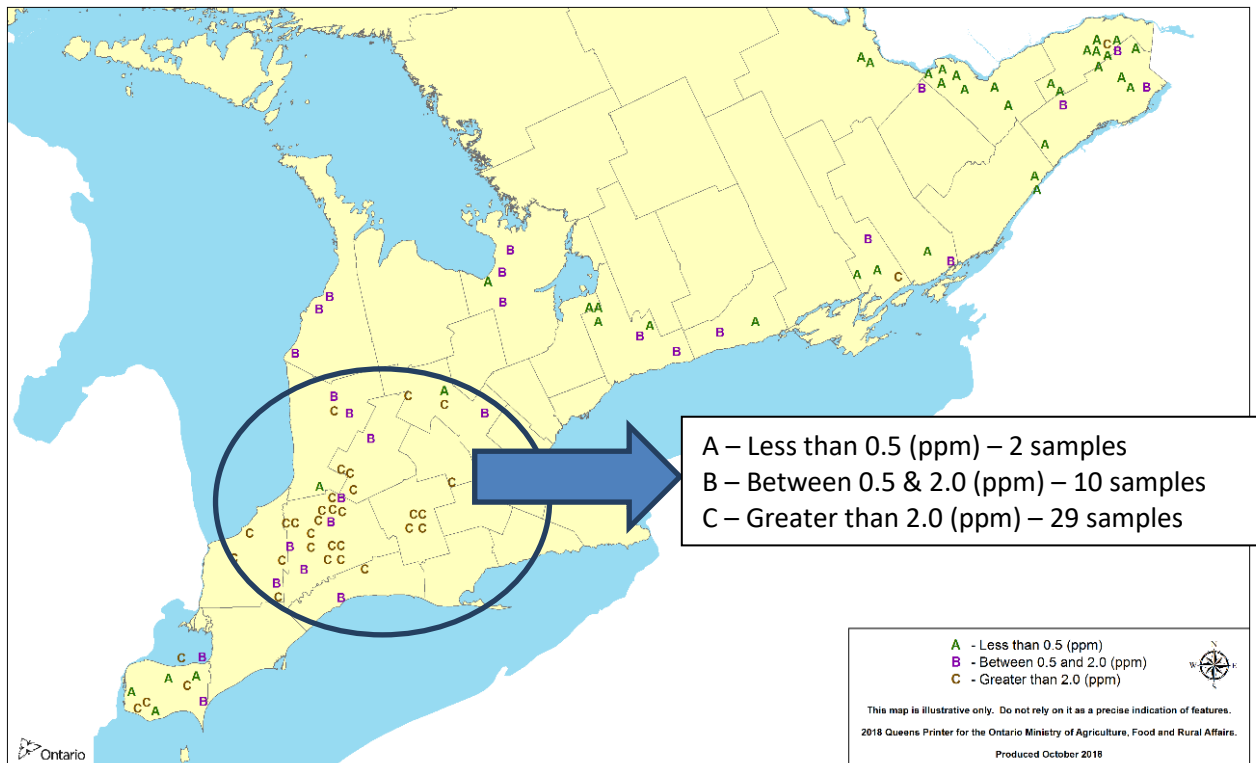


Figure 2 - Corn ear mould and vomitoxin (DON) survey sampling locations and results from Ontario Corn Committee (OCC) **border rows** in 2018. Sample collection date (September 21-28, 2018). Source: OMAFRA with regional analysis by OABA.

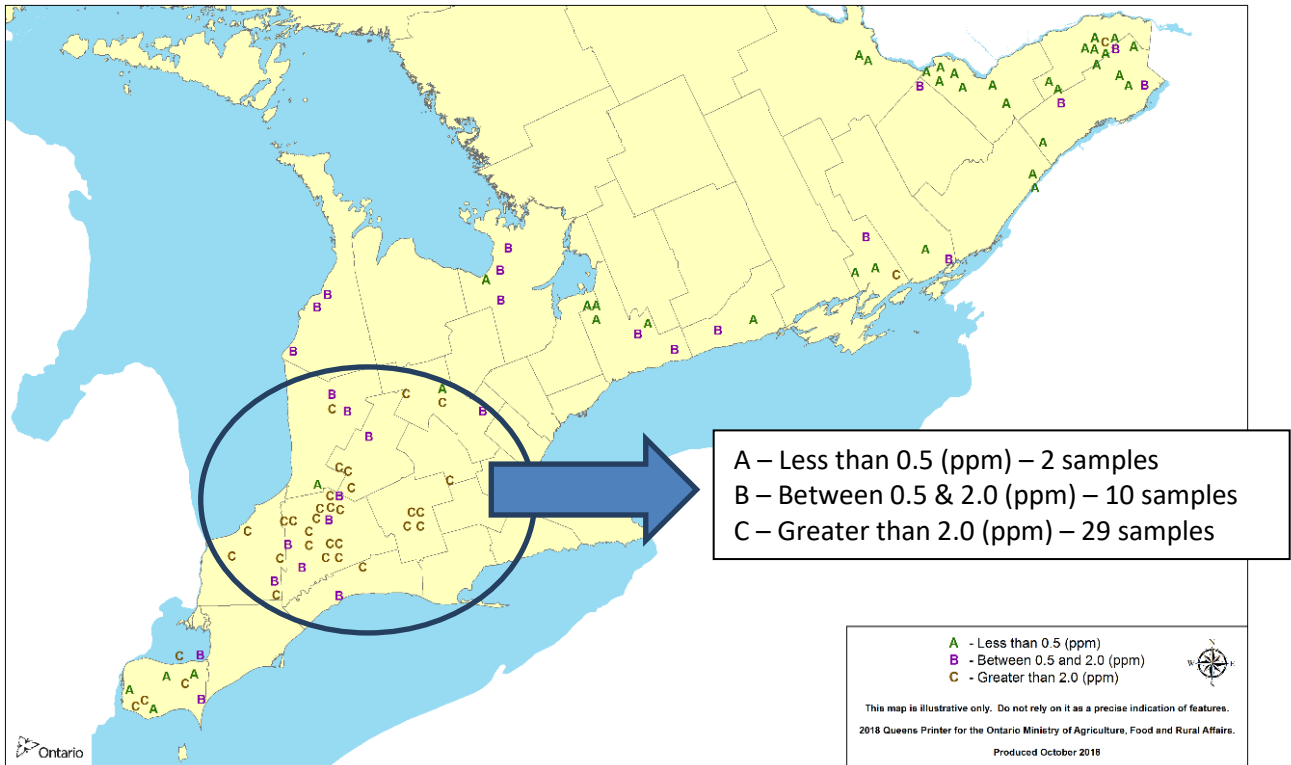


Table 1 - Vomitoxin (DON) results from the 2018 OMAFRA survey - Summary

<b>DON Concentration</b>	<b>Grower Samples</b>	<b>OCC Border Samples</b>	<b>All Samples</b>
Total Samples	102	44	146
< 0.50 ppm	37%	23%	33%
0.50 to <2.00 ppm	26%	27%	27%
2.00 to <5.00 ppm	18%	9%	15%
5.00 ppm and greater	19%	41%	25%

[Click here](#) to view the entire 2018 Grain Corn Ear Mould and Vomitoxin (DON) Survey on the OMAFRA website.

**OABA Comments on Figure 1, Figure 2 & Table 1:** It is important to note that at least three (3) weeks have passed since the corn samples for this vomitoxin survey were taken, and during this period, weather conditions may have contributed to continued mould growth and toxin development. Accordingly, depending on regional weather conditions, it should be noted that vomitoxin concentrations may have increased in areas of the province since this survey was taken. All geographical areas of the province must be diligent. Please be guided accordingly.

## **Critical Control Points of Assessing & Managing the Risk of Vomitoxin**

OABA has been in contact with Grain Farmers of Ontario, OMAFRA and Agricorp on this important issue, and will continue working with key stakeholder organizations to develop and distribute information.

It is important that all firms in the value chain establish their corn sampling, testing and delivery policies and procedures, and effectively communicate them to growers/customers accordingly.

### a) Collection of a Representative Sample for Vomitoxin Testing is Essential

The objective of sampling a delivery of grain is to obtain a representative sample of a size suitable for the required testing and/or grading. It is expected that the test results and grading will reflect the average quality of the grain lot from which the sample was taken.

As per the sampling guidelines contained in OABA's Good Operating Practices for Country Elevators, the following sampling protocol for truck deliveries of corn is provided for information purposes:

- Recommended a minimum of 6 sampling probes be taken, 4 from the outside edge of the load and 2 from the center
- Insert probe vertically into grain with slots closed
- When maximum depth is reached, open slots(if required)
- Move probe up and down slightly to ensure all openings are filled
- Close slots and extract probe
- Precaution – for pneumatic probes, it is important that the slots close tightly to ensure additional dockage material is not drawn into the sample
- Ensure identification is complete

### b) Testing the Representative Sample for the Presence of Vomitoxin

Once you have a representative sample, the next step is to test that sample for the presence of vomitoxin. There are a number of “quick tests” tests available that can be used to test for vomitoxin on-site.

Companies that sell mycotoxin detection equipment and test kits include\*\*:

- Charm Sciences. Inc. - [www.charm.com/products/test-and-kits/mycotoxin-tests/](http://www.charm.com/products/test-and-kits/mycotoxin-tests/)
- EnviroLogix - <https://www.envirologix.com/> (Available in Ontario through Xygen Diagnostics, Inc. - <http://www.xygen.com>)
- Neogen Corporation - [foodsafety.neogen.com/en/mycotoxins](http://foodsafety.neogen.com/en/mycotoxins)
- R-Biopharm AG - <https://food.r-biopharm.com/analytes/mycotoxins/>
- Romer Labs - [www.romerlabs.com/us/products/mycotoxins](http://www.romerlabs.com/us/products/mycotoxins)
- VICAM - [vicam.com/products](http://vicam.com/products)

\*\*Source – “Grain and Silage Sampling and Mycotoxin Testing”, Crop Protection Network, 2018

There are also a number of professional laboratories and grain inspection services that may test individual corn samples for mycotoxins. OMAFRA publishes a list of these laboratories - [click here](#) to view the OMAFRA list of mycotoxin labs.

### c) Don't Rely on Visual Appearance of the Corn Alone

There are several technologies for testing mycotoxin concentrations in grain corn and silage. Never rely solely on visual methods such as visual presence of mould or the black

light test. OABA is aware of several reports where corn samples “looked great” but tested very high in vomitoxin. Visual methods are very inconsistent, so it is recommended that samples be tested using recommended on-site methods, or send them to a professional laboratory.

### **Worker Health & Safety – Mouldy Corn**

Simple safety procedures can be implemented to minimize exposure to grain dust and mould spores. When working with mouldy grain, employees should wear appropriate clothing such as long sleeves, pants, and gloves. A dust mask or respirator should also be worn to minimize inhalation risks. People who have a compromised immune system or respiratory ailments should avoid handling or working with mouldy grain. [Click here](#) for a safety factsheet from Purdue University.

### **How is Agricorp Handling Production Insurance Claims for High Vomitoxin Corn?**

OABA has initiated preliminary discussions with Agricorp to establish guidelines for production insurance claims for corn that is not marketable due to high levels of vomitoxin. We are advised that Agricorp is currently working on a release that will explain the crop insurance position regarding vomitoxin in corn.

During our preliminary conversation with Agricorp representatives, OABA was verbally advised that a corn producer will require two (2) letters of rejection from a grain elevator/feed mill/processor in order to initiate a crop insurance claim for high levels of vomitoxin. OABA would caution that, at this point, this is a ‘verbal directive’ from Agricorp staff. The formal policy/procedure for production insurance claims will be confirmed by Agricorp (in writing) in the coming days.

During the interim period, Agricorp is encouraging producers to call 1-888-247-4999, where the various options will be explained.

### **Next Steps**

OABA is working with Ridgetown Campus, U of G, OMAFRA and Agricorp to present a webinar on Monday, October 22, 2018 at 3:00 p.m. to present the most up to date information on the Ontario vomitoxin issue.

All OABA members are invited to attend this webinar.

**Date** - Monday, October 22, 2018

**Time** - 3:00 p.m. to 4:00 p.m.

**Audio** - Conference Call Number: 1 866-602-5461 - Participant Code: 4295257

**Visual** - <https://omafra.adobeconnect.com/r2lxvtu9exqj/>

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*This Member Alert is being distributed to all OABA Regular and Branch Members in the Crop Inputs, Grain & Feed Sections.....*

November 5, 2018

## MEMBER ALERT # 2

# High Concentrations of DON in 2018 Ontario Corn Crop

To view OABA MEMBER ALERT # 1 on High DON Corn (October 19, 2018) - [click here](#).

### 2018 Corn Harvest Overview

Since the first member alert issued on October 19<sup>th</sup>, poor weather conditions have resulted in slow progression of the corn harvest – it is estimated that the corn harvest is 15-20% complete province-wide. The incidence of high DON concentrations in corn continues to be a significant issue in certain geographical areas of the province. Since October 19, OABA participated in an industry stakeholder meeting on October 30<sup>th</sup>, and has had numerous meetings with Agricorp and GFO to discuss this evolving issue. OABA's Grain Section Committee is meeting regularly via conference call to discuss the most recent information related to the high DON in corn issue.



The purpose of this “Member Alert # 2” is to ensure that all OABA members are fully aware of the most current information related to the DON issue, and are taking the necessary steps to manage the operational, safety and financial risks with the potential of high DON concentrations that are present in the 2018 Ontario corn crop. It should be noted that some of the information from the first alert has been updated and is included in this communication.

### Communicate Clear & Transparent Information

It is essential that all primary buyers of Ontario corn establish **open and clear lines of communication** with corn growers regarding the issue and discount schedules, as well as policies and procedures related to receiving high DON corn in 2018. It is important that current discount schedules, along with receiving limitations related to high DON corn be

made available to grower-customers prior to their arrival with a load (or loads) of corn. The current harvest situation is placing considerable stress on both buyers and sellers of Ontario corn. In efforts to alleviate some of the stress associated with delivery of the 2018 corn crop, it is important that buyers and sellers are clear and transparent about the various terms associated with delivering high DON corn. Consider sending email updates to your customers that provide current information. It is important to take steps to ensure that your corn growing customers have the all the information they require prior to their arrival at your facility.

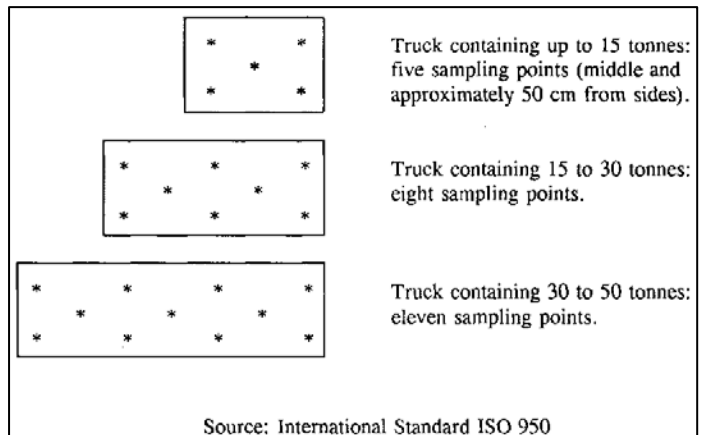
### **Critical Control Points of Assessing & Managing the Risk of Vomitoxin**

It is important that all firms in the value chain establish their corn sampling, testing and delivery policies and procedures, and effectively communicate them to growers/customers accordingly.

#### a) **Collection of a Representative Corn Sample for DON Testing is Essential**

The objective of sampling a delivery of grain is to obtain a representative sample of a size suitable for the required testing and/or grading. It is expected that the test results and grading will reflect the average quality of the grain lot from which the sample was taken.

As per the sampling guidelines contained in OABA's Good Operating Practices for Country Elevators, the following sampling protocol for truck deliveries of corn is provided for information purposes:



- Recommended a minimum of 6 sampling probes be taken, 4 from the outside edge of the load and 2 from the center
- Insert probe vertically into grain with slots closed
- When maximum depth is reached, open slots(if required)
- Move probe up and down slightly to ensure all openings are filled
- Close slots and extract probe
- Precaution – for pneumatic probes, it is important that the slots close tightly to ensure additional dockage material is not drawn into the sample
- Ensure identification is complete

As part of your sampling program, you might want to consider varying the pattern of your sampling probes.

#### b) **Testing the Representative Sample for the Presence of DON**

Once you have a representative sample, the next step is to test that sample for the presence of DON. There are a number of “quick tests” tests available that can be used to test for the presence of DON on-site.



Companies that sell mycotoxin detection equipment and test kits include\*\*:

- Charm Sciences. Inc. - [www.charm.com/products/test-and-kits/mycotoxin-tests/](http://www.charm.com/products/test-and-kits/mycotoxin-tests/)
- EnviroLogix - <https://www.envirologix.com/> (Available in Ontario through Xygen Diagnostics, Inc. - <http://www.xygen.com>)
- Neogen Corporation - [foodsafety.neogen.com/en/mycotoxins](http://foodsafety.neogen.com/en/mycotoxins)
- R-Biopharm AG - <https://food.r-biopharm.com/analytes/mycotoxins/>
- Romer Labs - [www.romerlabs.com/us/products/mycotoxins](http://www.romerlabs.com/us/products/mycotoxins)
- VICAM - [vicam.com/products](http://vicam.com/products)

\*\*Source – “Grain and Silage Sampling and Mycotoxin Testing”, Crop Protection Network, 2018

**PLEASE NOTE:** When using these on-site “quick tests” at your facility, it is essential that all staff responsible for on-site testing for DON in corn are properly trained and consistently follow the instructions for testing as established by the firm providing the kit. This is essential to the integrity of your DON testing program.

There are also a number of professional laboratories and grain inspection services that may test individual corn samples for mycotoxins. OMAFRA publishes a list of these laboratories - [click here](#) to view the OMAFRA list of mycotoxin labs.

c) **DO NOT Rely on Visual Appearance of the Corn Alone**

There are several technologies for testing mycotoxin concentrations in grain corn and silage. Never rely solely on visual methods such as visual presence of mould or the black light test. OABA is aware of several reports where corn samples “looked great” but tested very high in vomitoxin. Visual methods are very inconsistent, so it is recommended that samples be tested using recommended on-site methods, or send them to a professional laboratory.

**Worker Protection When Handling Corn with High DON Concentrations**

Concentrations of DON in the corn are also present in the dust that is generated when handling the corn. At higher concentrations, workers should be protected from inhalation of dust containing DON. Should you be receiving/handling/testing high DON corn, it is recommended that you assess the respiratory risks at your facility, review your respiratory protection program, and implement any necessary changes. Please note that any employee wearing any form of respiratory protection will require medical clearance, must be clean-shaven, and “fit-tested” to the specific dust mask/respirator. To view the **CSA Standard on Selection, Care and Use of Respirators**, please [click here](#). The following is provided for information purposes only.

Disposable Dust Masks - Please note that disposable dust masks are designed generally to protect workers against nuisance and **non-toxic dusts**. Dust masks should be certified and approved, two-strapped, and clearly labelled with both a letter (N, R, P) and a number (95,99,100). It should be noted that the person wearing the disposable dust mask must be clean shaven for proper fit-testing. Disposable dust masks last for one day and are the least expensive form of respirator. It should be noted that, while an N95 respirator has a filter with a minimum efficiency of 95%, this efficiency can be greatly reduced if not properly fitted to the worker. Disposable dust masks may not be appropriate for corn dust containing high concentrations of DON due to the fit limitations of the mask.

Reusable Dust Masks - Reusable air-purifying respirators typically come in half face and full face and are used to protect the user from dusts and mists. These masks operate like disposable masks, but the filters are replaceable. For corn dust containing high DON concentrations, OABA would suggest that facilities may want to consider half-face or full-face masks with P100 cartridges as a possible option. The masks can last for a few months, and some models have exhalation valves for comfort.



Personal Protective Equipment (PPE) – in addition to respiratory protection, workers exposed to dust from corn deliveries should employ PPE as per your facility guidelines, and employ enhanced personal hygiene practices, including hand washing, etc.

All OABA members are encouraged to take immediate steps to assess the worker health and safety risks within their operations related to the possible presence of corn dust containing high concentrations of DON, and to take the appropriate operational actions to address these risks.

### **Agricorp Update - Production Insurance Claims for High DON Corn**

Agricorp is constantly updating information for producers. [Click here](#) for the most recent information sheet from Agricorp. During recent discussions (November 2, 2018) between Agricorp and OABA, the following issues were discussed:

- Agricorp has indicated they will still cover corn that is being stored on farm, however, they require DON test results on that corn before processing any claim.
- Farmers are encouraged to ‘store’ higher risk corn in the field (standing) if conventional storage is not available.
- The December 15<sup>th</sup> reporting deadline is only an administrative deadline, it will not impact the ability of Agricorp to process production insurance claims.
- OABA enquired about the requirement for “two rejections” of a load as previously required by Agricorp. OABA advised Agricorp that it was unfair to expect grain buyers to assume costs for DON testing just so a producer can meet the needs of Agricorp. **In response to OABA concerns, Agricorp has now advised that a “single rejection” is now sufficient for Agricorp to initiate a production insurance claim.**

Agricorp continues to ask that all producers in a claim position contact them to discuss options at 1-888-247-4999.

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