

# Sampling for Ergot and Mycotoxin Analysis



1. For Mycotoxin and Ergot analysis, correct sampling is critical since the toxin levels can be very high in the few contaminated seed heads and low or zero in unaffected heads. It is important that the sample accurately reflects the bulk lot.
  - a. In order to ensure that the sample is representative, it is essential that particles are not excluded or included based on size or location in the bulk lot.
  - b. In a bulk lot that has been thoroughly mixed, it is assumed that all particles are evenly distributed, whereas a lot that has been contaminated due to moisture leaks, etc. may only be contaminated in isolated pockets.
  - c. It is important to not miss these pockets, or sample only them, as they are not a good representation of the whole lot.
  
2. The best way to sample a static lot (storage bin, railcar, truck, sack, etc.) is an accumulation of many small samples taken from different locations throughout the lot (**at least 5 locations**).
  - a. The sampling probe should be long enough to reach the bottom of the container.
  - b. It is recommended that each portion be about 200 g and one portion be taken for every 200 kg of product.
  - c. If this aggregate sample is too large, it should be blended, and a representative subsample of an appropriate size (~1 kg) taken.
  - d. Dynamic lots such as conveyor belts should involve multiple samples across the entire cross section of the moving stream.
  
3. Samples should be packaged in a large heavy duty zip lock freezer bag then shipped in an appropriately sized box.
  - a. Ensure that:
    - i. Samples are clearly identified with the sample ID and owner's name.
    - ii. A completed **Mycotoxin Ergot Nitrate Toxin submission form** accompanies the samples. Submission form can be found on the PDS website ([pdsinc.ca](https://pdsinc.ca)) - [Mycotoxin Ergot Nitrate Toxin Submission Form](#).
    - iii. Submission form is not inside the bag with the sample.
  
4. Samples may be shipped to PDS by bus, courier, or mailed.
  - a. Ship to:

Prairie Diagnostic Services  
52 Campus Drive Saskatoon, SK  
S7N 5B4 306-966-7316
  - b. Prairie Diagnostic Services has negotiated bulk rates from Purolator.
    - i. If Purolator shipments are available in your area, samples may be sent collect to PDS and we will bill back the costs to you.
  - c. For more courier information see **Purolator Courier Rates** in the Introduction section of this Guide or on the PDS website ([pdsinc.ca](https://pdsinc.ca)) at [Purolator Courier Rates](#).