Appendix 1: Decision Tree for Seed Treatment (Excluding Potato Seed-Piece Treatment)

- **Maximum Theoretical Residue in Harvested RACs (Food And Feed) <5 ppb?**
  - Yes → NF, No Data Required
  - No → Additional Data May Be Required On A Case-By-Case Basis (E.G., Residue Data For Soil Metabolites, Residue Data For Seed + Foliar Application)

- **Foliar Use Also Registered or Proposed?**
  - Yes → ROC Same for Foliar And Soil Treatments? (Compare Foliar Metabolism Data with Confined Rotational Crop Data)
  - No → Conduct Radiotracer Study

- **Radiotracer Study Available?**
  - Yes → Conduct Radiotracer Study
  - No → Rate >10 g ai/100 kg Seed? (Label Restriction On the Foliar End-Use Product May Be Required)

- **TRR/ROC <5 ppb in All RACs (food and feed) in 1X Radiotracer Study?**
  - Yes → NF, No Additional Data Required. No Tolerances Required.
  - No → OR
    - Conduct Radiotracer Study
    - Food Use, Field Trial Data (1X) Required for All RACs Which ROC ≥5 ppb in the Radiotracer Study. Tolerances Set (LOQ Level for RACs in Which ROC <5 ppb). For RACs that are Only Livestock Feed Items, a 50% Reduction in the Number of Trials can be Applied. Note that Livestock Metabolism (and Possibly Feeding) Studies Will Be Required and that Adequate Plant Metabolism Should Be Available.

- **Are Adequate Plant Metabolism Data Available to Determine ROC?**
  - Yes → Rate >10 g ai/100 kg Seed?
  - No → No Additional Data Required. Foliar Tolerances Cover Seed Treatment.

- **Conduct Radiotracer Study**
  - Then → For Human Foods, No Field Trial Data Are Required and A LOQ-Level Tolerance Is Set; For RACs That Are Only Livestock Feed Items, A 50% Reduction In The Number Of Trials Can Be Applied.

- **OPTIONAL for Both Food/Feed Items: ROC <LOQ in Three 5X Field Trials? (Assumes Adequate Plant Metabolism Data Available to Determine ROC)**
  - Yes → Food Use, No Additional Data Required. Tolerances Set at LOQ Level for All RACs.
  - No → No Additional Data May Be Required On A Case-By-Case Basis (E.G., Residue Data For Soil Metabolites, Residue Data For Seed + Foliar Application)

**Definitions:**
- NF: Non-Food
- LOQ: Limit of Quantification
- ROC: Residues of Concern.
- Note that if there is no characterization/identification of the TRR (total radioactive residues), then the ROC = TRR.

**Notes:**
1) For highly toxic chemicals, the 5 ppb ROC threshold value may be reduced; 2) If the ROC are <5 ppb in radiotracer studies conducted on five representative crops (small grain, radish or garden beets (analyze both root and tops), leaf lettuce, soybeans, and a short season fruiting or cucurbit vegetable), then seed treatment uses on all crops will be considered NF; 3) If the ROC in wheat forage, hay, grain, and straw are all <5 ppb, then the seed treatment can be considered nonfood for the following crops: wheat, barley, oats, rye, triticale, buckwheat, sorghum, rice, and millet. Also, if the ROC is <5 ppb in all wheat and corn RACs, then uses on all cereal grains can be classified as NF; 4) For uses on soybeans and peanuts (or other legumes that are not grown as livestock feeds) where ROC ≥5 ppb in soybean forage/hay and peanut hay, but <5 ppb in seeds or nutmeats, the uses are classified as food uses and field trials required unless the petitioner chooses to restrict feeding of the foliage parts of these crops. This restriction would eliminate the need for crop field trials on the foliage, but a LOQ-level tolerance would still be needed for the seeds or nutmeats; 5) If tolerances are needed, then a validated enforcement method will always be required; 6) A minimum of three trials are required for tolerance setting; 7) In cases where field trials are waived for a human food RAC, a processing study will also not be required.