**  
Activity #8**

**Contamination is for the Birds**

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GPP(s): 9

Group Size: 15-50

Length of Activity: 20 min

**Background:**

Uneven drug dispersal in feeds due to poor feed mixing is often a potential cause of drug residue. Youth 4-H members participating in livestock projects should have a basic understanding of feeds, additives and how to avoid contamination.

**Objectives:**

* Youth should be able to understand the importance of avoiding cross-contamination of feed/additive reside from using contaminated equipment.
* To teach youth to understand the implications of contamination and how it affects their livestock project.
* Explain the importance of proper measurement and mixing of feed and additives.

**Materials and Supplies**

* Feed ingredients
  + Whole Corn Feed
  + Sunflower Seeds
  + Millet Seeds
  + Milo Seeds
  + Safflower Seeds
* Additives
  + Peanut butter
  + Canola oil
  + Peanuts (without shells)
* 4-5 small 3 qt. buckets
* 4-5 large spoons or other utensils to mix feed
* 5 oz. cups (one per person)
* 20 1 gallon Ziploc bags

**Activity Description:**

**Preparation:**

* Place the feeds in separate containers or open the bags they came in.
* Make a list of 3 ingredients and 1 additive for each group. They list should not be the same ingredients and additive for all groups.

**Activity:**

* Divide members into small groups and hand out feed mixing equipment (buckets, spoons and cups). Handout each group’s feed and additive list.
* Have each group put one “scoop” of each feed ingredient into their bucket using the 5 oz. cups. Discuss how the “scoop size is different for each person and how important weighing out feed and additives is for this reason.
* Have each group mix their feed with the spoon (or other mixing utensil) until it is thoroughly and evenly mixed.
* Next have each group mix in a half a scoop of the additive (a utensil may be necessary for the peanut butter) to their mixture of feed. Then stir the mixture and additive just a few times. Discuss the importance of thorough mixing to make sure each animal gets the same amount of the additive.
* Have each group continue to mix their additive until they feel it is evenly distributed throughout the feed. Each group should discuss how easy or hard it was to mix their additive. Have the groups talk about the differences between the type of additives (peanut butter, oil and dry peanuts) and how they affect the ease of mixing and how much reside is left on equipment (spoons).
* Discuss how the residue on equipment could affect other feeds you mix. Emphasize the importance of cleaning equipment thoroughly.
* Have each group divide up their feed (which is now a bird seed) into the Ziploc bags to take home with them. Distribute 2-3 paper towels to each group and have them clean out their buckets, getting them as clean as possible. Discuss the ease of cleaning and the amount of residue left behind.

**Discussion**

Why is it important to weigh feed as opposed to scooping the feed out?

Why should you never mix medicated and non medicated feed in the same equipment?

Why is it important to make sure the feed and additives are mixed evenly?