

**USE OF ANKOM FILTER BAG TECHNIQUE FOR
NDF AND ADF ANALYSES
Updated September 2013**

I. Personal Protective Equipment:

- A. Lab coat
- B. Safety glasses/ goggles
- C. Latex gloves and thermal gloves over latex
- D. Face shield for releasing pressure from Ankom machine

II. Procedure:

- A. Label and weigh ankom filter bag.
- B. Fill bag with 0.5000-0.5040 g of sample.
- C. Heat seal bag to close within 1/8 inch of end (heat sealing does not alter bag weight). Make sure to seal bags twice keeping the seals close together.
- D. Place three bags per level in bag suspender. Spread sample evenly in bag.
- E. Place bag suspender and weight in Ankom machine.
- F. Fill machine with ~1700mL of NDF/ADF solution (solution should cover the top level of bag suspender). Close lid tightly.

Note: It takes 15 min for temperature to come up after bags are placed into solution.

- G. Turn on agitator. Agitate for 75 minutes for NDF/ADF.
- H. Before opening lid **release NDF/ADF solution** from Ankom machine. Close valve and rinse.
- I. Rinse bags by pouring boiling distilled water into reservoir. Leave lid open. Agitate for 5 min. Repeat 3 times.
- J. Remove bags from suspender, manually remove excess water from bags, and place in 60°C oven for 24 h or 100°C oven over night (minimum 6 hrs). Weigh bags back using a desiccator.

NOTE: If you are not analyzing for protein following procedure add 0.5 g sodium sulfite per bag. When analyzing by-products or corn add 0.5 mL α -amylase per bag.

III. Calculations:

$$\% \text{ Fiber} = 100 \times \frac{(\text{Dry Bag Wt} + \text{Residue Wt}) - (\text{Dry Bag Wt.})}{(\text{Sample Wt}) (\text{Lab corrected DM})}$$