

Instrument Operating Procedure

I. **PURPOSE:** To describe procedures to be followed for the use, inspection, cleaning, testing, and maintenance of:

- A. **Instrument:** Marion Laboratory Mixer
- B. **Manufacturer:** Marion Mixers, Inc.
3575 3rd Avenue
Marion, Iowa 52302
(319) 377-6371
- C. **Model:** SPS-1224
- D. **Serial Number:** SN-01027
- E. **Location:** AADAP Program Medicated Feed Preparation Area

II. **INSPECTION:**

- A. Before use:
 - 1. Make sure that the mixer has been placed on level ground.
 - 2. Drive guard(s) must be mounted before the mixer can be operated.
 - 3. Remove safety grill that covers the top of the mixing trough.
 - 4. Primary power source lever on the outside (south end) of the building that is labeled: Medicated Feed Mixer Only must be in the "on" position.
 - 5. Secondary power source lever on wall in mixing area is in the "on" position.
 - 6. Test drive guard to make sure it is in operation by turning mixer on with guard in place. Remove guard, and mixer should stop. If not, contact Study Director.

III. **SAFETY:**

- A. Do not attempt to work on, clean, or service this machine; do not attempt to open or remove any protective cover, guard, grate or maintenance panel; and do not attempt to use this machine in any way until the power has been turned off (i.e., Primary and Secondary Power Source levers), and the machine has come to a complete stop.

- B. Never place any part of your body under, on, or near rotating or other moving parts of the mixer.
- C. Never overload or misuse mixer.
- D. Never operate mixer if it is in need of service, lubrication, or repair.
- E. It is the responsibility of the supervisor or their designee to adequately train the employee-operator in the proper and safe use of the mixer.

IV. **USE:**

- A. Before turning the mixer “on,” first make sure the drive guard is in position. Then, turn the Primary Power lever on the electrical box to the “on” position, and press the green “start” button (labeled: Power On). Press the red “stop” button (labeled: Power Off) or remove the drive guard to shut the mixer off.
- B. The mixer is designed to be loaded while running. Do not start the mixer under a full load. However, according to the manufacturer, the mixer can be loaded up to about ½ full of a lighter material, such as fish feed, before starting the mixer.
- C. Faster and more efficient mixing is accomplished if ingredients are added near the center of the mixer.
- D. Best results are usually obtained by loading about two-thirds of the major ingredients, following with the addition of the minor ingredients, and finishing by adding the remainder of the major ingredients. This process may be modified when preparing “less-than-full-loads” of fish feed.
- E. Mixing is usually accomplished in 1 - 4 minutes after the last ingredient is added to the batch.
- F. To complete mixing, unmixed materials, which may be trapped in the discharge valve pocket, should be bled from the valve and returned to the mixer.
- G. **Do not take samples from within the mixer trough.** The best representative samples are taken at the discharge valve rather than from various points within the mixer.

- H. If liquids are to be added to the mix, they should be added after a short premix of the dry ingredients. The quickest and most uniform method of adding liquid is through a liquid manifold running the length of the mixer or by misting or spraying from a spray bottle.
- I. Never reach into the mixer until the drive guard is removed, the Primary Power turned off, and the mixer shaft has come to a complete stop.

V. **MAINTENANCE and CLEANING:**

A. Routine cleaning:

1. The Marion Mixer should be cleaned after each daily use.
2. Before attempting to clean the mixer, the drive guard must be removed, and the power source to the mixer must be turned off.
3. Spray or wash down the inside of the trough with hot or warm water. Then wipe out trough with clean towels. Do not use bleach or soap during regular cleaning. Place a bucket beneath the discharge valve for the water to drain into if no floor drain is present.

B. Routine maintenance:

1. Before using the Marion mixer after a prolonged period of non-use, an inspection procedure is recommended.
2. Before attempting to perform maintenance, the mixer's drive guard must be removed, and the Primary Power source to the mixer must be turned off.
3. For more complete maintenance instructions, see the user's guide.

VI. MALFUNCTIONS and REPAIR:

A. In case of malfunction, notify:

1. Marion Mixers, Inc.
3575 3rd Avenue
Marion, Iowa 52302
(319) 377-6371

VII. PERSONS RESPONSIBLE FOR EACH OPERATION:

A. The operator is responsible for implementing the list of precautions and insuring proper equipment use, maintenance, and lubrication.

APPROVED BY: _____ **DATE:** _____
Study Director

APPROVED BY: _____ **DATE:** _____
Investigator