Solid Manure Spreader Calibration and Maintenance for ______ Equipment

| Calibration Log | | Date: Calibration Complet | Calibration Completed by: | | | | | | |
|---------------------|---------------------|--|--------------------------------------|--|--|--|--|--|--|
| Tractor Gear/RPM | Spreader Setting | Spreader Capacity is Unknown: | Spreader Capacity is Known: | Calculated Application Rate (ton/ac) | | | | | |
| | | Area of plastic sheet: ft ² | Net Manure Weight on Spreader:tons | | | | | | |
| | | Net Manure Weight on: | Width of Spread Pattern:ft | | | | | | |
| | | Sheet 1:lbs Sheet 2:lbs Sheet 3:lbs | Travel Distance to Empty Spreader:ft | | | | | | |
| | | Area of plastic sheet: ft ² | Net Manure Weight on Spreader:tons | | | | | | |
| | | Net Manure Weight on: | Width of Spread Pattern:ft | | | | | | |
| | | Sheet 1:lbs Sheet 2:lbs Sheet 3:lb | Travel Distance to Empty Spreader:ft | | | | | | |
| | | Area of plastic sheet: ft ² | Net Manure Weight on Spreader:tons | | | | | | |
| | | Net Manure Weight on: | Width of Spread Pattern:ft | | | | | | |
| | | Sheet 1:lbs Sheet 2:lbs Sheet 3:lb | Travel Distance to Empty Spreader:ft | | | | | | |

Inspection and Maintenance Log

| Inspection Date | | | | | | | | Maintenance |
|--------------------------|--|----|-----|-------|-----|----|------|--------------------|
| Inspected by (initials): | | | | | | | Date | Action Initials |
| | Is the equipment functioning properly? | | | erly? | | | | |
| List Item Inspected: | Yes | No | Yes | No | Yes | No | | |
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Solid Manure Spreader Calibration

1. Spreader Capacity is Known.

Rate per acre = <u>Spreader Capacity X 43560</u> (Width X Travel Distance)

Example: 20 ton manure solids spreader makes a pass every 6 30" corn rows (15 ft.) and empties spreader in 2400 ft. is applying 24 tons per acre.

Rate per acre = <u>20 tons X 43560</u> = 24 tons/acre (15 ft. X 2400 ft.)

2. Spreader Capacity is Unknown.

- a. Cut three or more sheets of equally sized plastic. 22 square feet (3' x 7'4" or 4' X 5'6") is the preferred size for ease of calculation.
- b. Weigh empty 5 gallon bucket plus one plastic sheet on a scale: _____ lbs.
- c. Lay sheets in field with edges secured by stones or other heavy objects.
- d. Drive tractor at normal speeds and discharge manure at typical rates over plastic sheets. Record tractor gear: _____, engine RPM: _____, and spreader settings:



- e. Check the sheet. Did a reasonably representative application rate fall on the plastic sheet?
- f. Carefully fold individual sheets without losing manure and place each sheet in separate buckets. Weigh each bucket.

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Bucket 1: _____lbs. Bucket 2: ____lbs. Bucket 3: _____lbs.
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g. Subtract weight of empty bucket and plastic (step b) to determine net manure weight in each bucket. Net manure weight for

Bucket 1: _____lbs. Bucket 2: ____lbs. Bucket 3: ____lbs.

- h. Calculate average weight of buckets. Average Net Manure Weight: _____lbs.
- i. Calculate application rate:

Tons per Acre = (Net Manure Weight X 22)

area of plastic sheet (ft²)

If plastic sheet = 22 ft², then Tons per Acre = Net Manure Weight