

## Nutrient Management Assessment

**Goal: Get the most net dollar value from manure nutrients while protecting water quality.**

<b>Management Aspect</b>	<b>Below Average (1)</b>	<b>Average (2)</b>	<b>Above Average (3)</b>
Pen cleaning	Once a year or less often	After cattle are sold, twice a year	Monthly or more often pen cleaning
Manure analysis	Have not tested manure sample and do not use book values	Have tested in the past or use book values for manure.	Test manure to determine nutrient value for different types of manure (wet, dry, behind bunk, bedded, off the mound, stockpile, etc)
Soil sampling	Do not soil test or ignore soil test when applying fertilizer or manure	Soil test for each field but more than 5 years old.	Soil test fields by soil type on regular basis (each field every 4-5 years)
Spreader calibration	Do not adjust application rate.	Use settings and speeds recommended in equipment manual or weigh a full spreader	Calibrate spreader for different types of manure and have chart with setting, PTO, and ground speed for rate and manure type
Application rates	Apply to same field each year	Rotate application fields, but have no specific application plan.	Match application rates to crop needs as part of multi-year nutrient plan
Application records	Do not keep track of loads or location	Record loads hauled to fields	Record loads hauled to where and when. Know N-P-K applied per acre
Commercial fertilizer	Do not adjust commercial fertilizer application rates on fields that receive manure.	Apply less commercial fertilizer to fields that receive manure.	Apply according to multi-year nutrient plan to balance all nutrient costs with yield goals
Yield check	Do not measure yields on fields receiving manure	Measure yield by field and can compare manure to commercial fertilizer yields.	Measure yield by application area to know manure response. Use late-season nitrogen test to modify N rates. Calculate dollar value of manure
Timing of application	Apply on slopes and near streams when ground is snow covered	Do not apply to steep slopes when snow covered	Do not apply to snow covered or saturated fields. Match land treatment practices with manure management.
Setback distance	Do not use setback distances	Do not spread next to stream or tile inlets. Incorporate filter strips.	Know and honor setback distances from required areas. Communicate to spreader drivers.

**Add up your score for the 10 aspects. A score of 20 is average.**

Farm: Smith Farm

Date: \_\_\_\_\_

What is the objective? *Increase efficient use of manure to reduce N,P, and K expense for crop production*

How will performance be measured? *Measure the N,P and K cost per acre and per bushel of crop production. Include manure handling and application cost as well as commercial fertilizer cost.*

Are there regulations or rules to be followed? If so which ones? *Open feedlot below 1000 head, no regulations other than to protect water quality. No EQIP funds -- no CNMP.*

What are the essential steps?	Who is responsible?	What is the deadline?
<i>Sample manure to determine nutrient content for NPK. Get factsheet on how to sample</i>	<i>Jim</i>	<i>October, January, July</i>
<i>Soil sample fields to determine where soils have high P&amp;K levels already</i>	<i>COOP agronomist</i>	<i>November</i>
<i>Develop nutrient plan to optimize nutrients taking into account cost of application</i>	<i>Jim call TSP TSP will complete plan</i>	<i>Call by Sept 15 Plan done by Jan 15</i>
<i>Calibrate spreader. Develop setting/speed for different rates Get factsheet on spreader calibration</i>	<i>Jim and Dan</i>	<i>November</i>
<i>Train spreader drivers on application rates and setting/speed to achieve rate</i>	<i>Jim</i>	<i>When plan is completed</i>
<i>Record loads hauled and to which fields. Keep track in spreader tractor and transfer to crop records</i>	<i>Spreader driver Jim</i>	<i>When hauling April 1 and Nov 1</i>
<i>Order and apply commercial fertilizer where needed</i>	<i>Jim</i>	<i>After April 1 and Nov 1</i>
<i>Do yield checks</i>	<i>Jim and Seed dealer</i>	<i>At Harvest</i>
<i>Do late season stalk nitrogen test</i>	<i>COOP agronomist</i>	<i>At Harvest</i>
<i>Calculate NPK cost per acre and bushel for the year. Compare to Extension budgets and last year cost.</i>	<i>Jim</i>	<i>December</i>
<i>Make adjustments for next year</i>	<i>Jim with agronomist and TSP</i>	<i>January</i>

