

How to Complete NMP Summary and NMP Summary Notes

Purpose and Overview:

This procedure provides an overview and details how to complete Nutrient Management Plan, (NMP) Summary worksheet. The NMP Summary includes application rates listed field or crop management unit for all nutrient sources applied to meet crop nutrient needs for all fields on the entire operation (owned and rented acres). It includes a Whole Farm Note, the Crop Year(s), Operation Acres, Animal Equivalent Units, (AEU) and Animal Equivalent Units per Acre.

The NMP Summary worksheet requires data entry so it has a yellow colored sheet tab in the NMP Excel workbook.

The NMP Summary Notes worksheet is a separate tab in the Excel workbook but it is populated when completing the NMP Summary.

The NMP Summary is provided to help the farmer implement the plan on individual fields. Planners are encouraged to use the notes section to provide additional explanation or clarification to the farmer. Common examples are manure application setbacks, multiple manure applications or double cropping scenarios. Refer to the Pennsylvania Nutrient Management Act Program Technical Manual for NMP Summary Notes Requirements.

The NMP Summary Notes worksheet information is transferred information therefore it has a grey colored sheet tab in the NMP Excel workbook.

You can find the NMP Summary and NMP Summary Notes Worksheet tabs by looking for the hyper link in the NMP Spreadsheet Index

	A	B	C	D	E	F	G	H
1	NMP Spreadsheet Index							
2	NMP Version 6.0 2017-10 (2007-2016 Excel)							
3	NMP Instructions							
4	Contacts for Additional Information							
5	Input: Create Farm Specific Animal List							
6	Input: Manure Group Information Input Sheet							
7	Input: Manure Analysis Average							
8	Input: Create Farm Crop List							
9	Input: Appendix 4 Crop and Manure Management, P Index, Winter Matrix							
10	NMP Summary							
11	NMP Summary Notes							

NMP Index

Or just scroll through the tabs until you find it. The tab in the NMP Spreadsheet that looks like this:



How to Complete NMP Summary and NMP Summary Notes

2.1. Nutrient Management Plan Whole Farm Notes

	A	B	C	D	E	F	G	H	I	
1	Nutrient Management Plan Summary									
2										
3	Total acres reported in NMP Summary:									
4	Whole Farm Note:									
5	<p>If manure runs out for any field, consult Appendix 4 of the plan for that field. The fertilizer required on any part of the field that does not receive manure can be determined from the 'Net Nutrients Required' for that field.</p>									

Whole Farm Note

A note to the farmer that apply to the whole plan. Global management changes or general information that the farmer needs to be aware of when the plan is implemented.

For example if the starter fertilizer program was changed.

NMP Summary

2.2. Crop Year(s)

Enter the crop years(s) covered in this plan. The year(s) entered here will transfer to all printed worksheets.

	H	I	J	K	L	M	N	O	P	Q	
	Summary										
	Crop Year(s) <input type="text" value="2019"/>										
	Create/Update Summary										

	A	B
	Appendix 3 Manure Group Information Crop	
4	Yrs. 2019	Cow Fall Liquid
8	Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal
9	Total Nitrogen (N) (lbs/ton or 1000 gal)	20.50

Appendix 3 Manure Group Info.

Crop Year(s)

Enter the crop year(s) covered in this plan.

The year(s) entered here will transfer to all printed worksheets.

NMP Summary

2.3. Operation Total Acres

How to Complete NMP Summary and NMP Summary Notes

The NMP is to include all the lands that are an integral part of this animal operation. These lands may be different from those lands counted in the AEU/acre calculation.

Total Acres

7		
8	Operation Acres:	Lands owned by the operator which are located at the animal
9	Total Acres <input type="text" value="135"/>	production facility, as well as other lands under the
10		management control (owned or rented) that are an integral
	NMP Summary	part of this animal production facility.

2.4. Total Acres Available For Nutrient Application Under Operator's Control: Owned and Rented

Owned Acres: List the number of acres OWNED, from the total acres in the NMP that will receive nutrients during the normal cropping rotation for the operation. This includes nutrients from manure, sewage sludge or bio-solids, chemical fertilizers, etc.

Rented Acres: List the number of acres RENTED, from the total acres in the NMP that will receive nutrients during the normal cropping rotation for the operation. This includes nutrients from manure, sewage sludge or bio-solids, chemical fertilizers, etc.

Total Acres Available For Nutrient Application Under Operator's Control: Owned: Rented:

NMP Summary

Owned Acres

List the number of acres OWNED , from the total acres in the NMP that will receive nutrients during the normal cropping rotation for the operation.

This includes nutrients from manure, sewage sludge or bio-solids, chemical fertilizers, etc.

Rented Acres

List the number of acres RENTED , from the total acres in the NMP that will receive nutrients during the normal cropping rotation for the operation.

This includes nutrients from manure, sewage sludge or bio-solids, chemical fertilizers, etc.

2.5. Animal Equivalent Units

The AEU's shown is the sum of all AEU's from all manure groups from the Appendix 3 Manure Group Information Tab.

How to Complete NMP Summary and NMP Summary Notes

10	
11	Animal Equivalent Units 143.01
12	

NMP Summary

In the example:

The sum of the Cow Fall Liquid and Cow Spring Liquid Manure Group AEU's in Appendix 3 Manure Group Info. Tab divided by the total acres owned and rented in the NMP Summary.

2.6. Animal Equivalent Units per Acre

The AEU's shown is the sum of all AEU's from all manure groups in Appendix 3 Manure Group Info. Tab.

Animal Equivalent Units Per Acre: 1.43	Animal Equivalent Units
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The AEU's shown is the sum of all AEU's from all manure groups in Appendix 3 Manure Group Info. Tab.

NMP Summary

= (71.51 AEU's Cow Fall Liquid Manure Group + 71.51 AEU's Cow Spring Liquid Manure Group) ÷ (75 Acres owned + 25 Acres rented)

= 143.02 AEU's ÷ 100 Acres = **1.43 AEU's per Acre**

	A	B	C	D	E
4	Appendix 3 Manure Group Information	Cow Fall Liquid		Cow Spring Liquid	
8	Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal		lb/1000 gal	
9	Total Nitrogen (N) (lbs/ton or 1000 gal)	20.50		18.90	
10	Ammonium N (NH ₄ -N) (lbs/ton or 1000 gal)	8.30		7.40	
11	Total Organic N (lbs/ton or 1000 gal)	12.20	Go to NMP Index	11.50	
12	Total Phosphate (P ₂ O ₅) (lbs/ton or 1000 gal)	10.40	Go to Appendix 3 Input	9.60	
13	Total Potash (K ₂ O) (lbs/ton or 1000 gal)	18.20	Go to Manure Avg Input	16.80	
14	Percent Solids	5.50	Grazing Calculator	6.70	
15	PSC Value (analytical or book value)	0.80		0.80	
16	Percent Moisture	94.50		93.30	
17	Manure Group AEU's	71.51		71.51	

Appendix 3 Manure Group Info.

2.7. Populating the NMP Summary and Summary Notes

How to Complete NMP Summary and NMP Summary Notes

Click on the Create/Update NMP Summary button after completing or changing the crop & manure management information and field notes in App 4 Input. This will populate or fill in the NMP Summary and the NMP Summary Notes worksheets.

Nutrient Management Plan Summary

Total acres reported in NMP Summary: _____ Crop Year(s) 2019

Whole Farm Note: _____
 If manure runs out for any field, consult Appendix 4 of the plan for that field. The fertilizer required on any part of the field that does not receive manure can be determined from the 'Net Nutrients Required' for that field.

Operation Acres:
 Total Acres: 135 Total Acres Available For Nutrient Application Under Operator's Control: Owned: 75 Rented: 25

Animal Equivalent Units: 143.01 Animal Equivalent Units Per Acre: 1.43

CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate ¹	Starter/Other Fertilizer (lb/A)			Supplemental Fertilizer (lb/A)			Nutrient Balance (lb/A) ²		
							N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O
A6	6	Established Alfalfa with Manure	Cow Fall Liquid	Summer	Summer utilization- Incorporation after 7 days or none	7800 gal/A	0	0	0	0	0	0	0	-81	-92
A7	4	Established Pasture (without legume)	Dry Cows Fall - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0					
A7	4	Established Pasture (without legume)	Dry Cows Spring - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0	102	0	0	-21	-49

Create/Update NMP Summary
 Click on the **Create/Update NMP Summary button** after completing or changing the crop & manure management information and field notes in App 4 Input.

NMP Summary

Nutrient Management Plan Summary

Total acres reported in NMP Summary: 37.0 Crop Year(s) 2019

Whole Farm Note: _____
 If manure runs out for any field, consult Appendix 4 of the plan for that field. The fertilizer required on any part of the field that does not receive manure can be determined from the 'Net Nutrients Required' for that field.

Operation Acres:
 Total Acres: 135 Total Acres Available For Nutrient Application Under Operator's Control: Owned: 75 Rented: 25

Animal Equivalent Units: 143.01 Animal Equivalent Units Per Acre: 1.43

CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate ¹	Starter/Other Fertilizer (lb/A)			Supplemental Fertilizer (lb/A)			Nutrient Balance (lb/A) ²		
							N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O
A6	6	Established Alfalfa with Manure	Cow Fall Liquid	Summer	Summer utilization- Incorporation after 7 days or none	7800 gal/A	0	0	0	0	0	0	0	-81	-92
A7	4	Established Pasture (without legume)	Dry Cows Fall - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0					
A7	4	Established Pasture (without legume)	Dry Cows Spring - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0	102	0	0	-21	-49

The NMP Summary is filled in after clicking the Create/Update NMP Summary button

NMP Summary

Positive numbers represent nutrient deficit values and Negative numbers represent nutrient excess values.

2.8. NMP Summary Notes

How to Complete NMP Summary and NMP Summary Notes

Remember the NMP Summary Notes tab is colored grey to indicate all information is transferred there. Nothing is entered in this worksheet.

A		R
1	NMP Summary Notes	
2		
3		
4	Crop Years 2019	
14	CMU/Field ID	Notes
15	A1	
16	A1	
17	A2	
18	A2	
19	A3	
20	A3	
21	A4	25% Ground cover must be present for winter application.
22	A4	
23	A5	
24	A6	
25	A7	drys cow are grazed from April to September with 24 hr unrestricted access and are fed and watered at the barn.
26	A7	dry cows are grazed October with 24 hr unrestricted access and are fed and watered at the barn.
27		
28		

NMP Summary Notes

2.9. Total acres reported in NMP Summary

This cell is filled in after you click on the Create/Update Summary button. The Total Acres reported is a sum of all the fields entered into App 4 Input sheet. Double cropped fields and fields with multiple manure applications are counted only once if they are completed correctly.

A	B	C	D	E	F	G	H	I	J
1	Nutrient Management Plan Summary								
2									
3	Total acres reported in NMP Summary:			37.0					

NMP Summary

The Total Acres reported is a sum of all the fields entered into App 4 Input sheet. It is filled in after you click on the Create/Update Summary button. Double cropped fields and fields with multiple manure applications are counted only once if they are completed correctly.

3. Notes

3.1. Planned Manure Rates on fields with Grazing

How to Complete NMP Summary and NMP Summary Notes

Notice the planned manure rate for uncollected manure from animal on pasture states “Grazing See Notes”. The amount of uncollected manure is based on the days and hours /day on pasture. This information will be transferred from where it was entered in App 4 Input to the NMP Summary Notes.

14	CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate ¹
26	A7	4.0	Established Pasture (without legume)	Dry Cows Spring - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing See Notes

NMP Summary

Planned Manure Rates for grazing animals will be listed as “Grazing See Notes”

3.2. Planned manure rate when no manure is applied

If no manure is planned to be applied to a field. The recommended guidance is to enter a zero in App 4 Input. If it is zero or left blank in App 4 Input, the planned manure rate will state “No Manure Applied”.

14	CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate ¹
23	A5	6.0	Established Alfalfa	No Manure Applied			No Manure Applied

NMP Summary

If the planned manure rate entered in App 4 Input is blank or zero then “No manure Applied”, will be displayed.

4. Revision History

Date	Previous Revision	Description of Significant Changes
Oct 9, 2017	None	First issue of the document.