

NBS Standard Format Version 8.0 Released – October 2024

The Nutrient Management Program has updated the Nutrient Balance Sheet (NBS) Spreadsheet to Version 8.0. Several updates were added to resolve identified issues and provide additional information.

Planners must use NBS Version 8.0 when planning for crop year 2026 and beyond.

The updated NBS Version 8.0 can be found on the Nutrient Management Website in the planning tools section: <https://extension.psu.edu/programs/nutrient-management/tools/sheet>

The following updates were made to version 8.0

1. Crop & Manure Management Input / Printout

- 1.1. Updated late fall and winter ammonium nitrogen values for next summer use after unharvested cover crop to be consistent with Penn State Agronomy Guide Table 1.2-12. This only affects late fall and winter manure applications for next summer use after an unharvested cover crop.

Comparison of NBS Versions 7.0 and 8.0: Update shows less supplemental fertilizer is required.

Option 1 P Removal Option 2 Nitrogen Based Nutrient Balance Sheets	Corn Grain			Option 1 P Removal Option 2 Nitrogen Based Nutrient Balance Sheets	Corn grain		
Crop Group Identification				Crop Group Identification			
Crop Removal Recommendations (lb/A)	N	P2O5	K2O	Crop Removal Recommendations (lb/A)	N	P2O5	K2O
	180	72	54		180	72	54
Soil Test Recommendation (lb/A)				Soil Test Recommendation (lb/A)			
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0
P Index Application Method				P Index Application Method			
Double Crop Carry Over N (lb/A)	0			Double Crop Carry Over N (lb/A)	0		
Manure Residual Legume N (lb/A)	0	Rarely - Summer Crop		Manure Residual Legume N (lb/A)	0	Rarely - Summer Crop	
Residual Legume N (lb/A)	0	No Previous Year Legume		Residual Legume N (lb/A)	0	No Previous Year Legume	
Net Nutrients Required (lb/A)	180	72	54	Net Nutrients Required (lb/A)	180	72	54
Manure Group	Dairy Liquid			Manure Group	Dairy Liquid		
Units	lb/1000 gal			Units	lb/1000 gal		
Manure Nutrient Content (lbs/ton or 1000 gal)	Total N	P2O5	K2O	Manure Nutrient Content (lbs/ton or 1000 gal)	Total N	P2O5	K2O
	28.00	13.00	15.00		28.00	13.00	15.00
Application Season: Management (Incorporation, cover crops, etc.)	Late Fall: Next summer use after unharvested cover crop			Application Season: Management (Incorporation, cover crops, etc.)	Late Fall: Next summer use after unharvested cover crop		
Availability Factors (NH4-N & Organic N)	NH4-N		Org. N	Availability Factors (NH4-N & Organic N)	NH4-N		Org. N
	0.00		0.35		0.50		0.35
N Balanced Manure Rate (ton or gal/A)	36735 gal/A			N Balanced Manure Rate (ton or gal/A)	15126 gal/A		
P Removal Balance Manure Rate (ton or gal/A)	5538 gal/A			P Removal Balance Manure Rate (ton or gal/A)	5538 gal/A		
	Crop P Removal (lb/A) 72				Crop P Removal (lb/A) 72		
Planned Manure Rate (ton or gal/A)	4000 gal/A			Planned Manure Rate (ton or gal/A)	4000 gal/A		
Nutrients Applied at Planned Manure Rate (lb/A)	20	52	60	Nutrients Applied at Planned Manure Rate (lb/A)	48	52	60
Nutrient Balance after Manure	160	20	-6	Nutrient Balance after Manure	132	20	-6
Supplemental Fertilizer (lb/A)	160	0	0	Supplemental Fertilizer (lb/A)	132	0	0

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2. NBS Input and NBS Input P Index sheets

- 2.1.** Added messages to indicate missing Crop or Manure information which is needed for the Balanced Manure Rate calculations.

The user is prompted to enter missing crop yield to complete the balance manure rate calculations.

		Balanced Manure Rate		
Crop Yield	Crop Yield Units	Nitrogen Balanced Manure Rate	Crop Phosphorous Removal Manure Rate	Planned Manure Rate
	bu/A	Add Crop Yield	Add Crop Yield	4000
200	bu/A	9627	615	4000
200	bu/A	5652	0	4000

3. NBS Transfer of Previous Versions

- 3.1.** The NBS can transfer any NBS Version 5, 6, 7, or 8 plan. The previous application season and management selections will be converted to the appropriate updated application season and management. The manure type of "Dairy" will be converted to "Other"
- 3.2.** The transfer process has been updated so that on the NBS Summary page, the input boxes for the Importing Farm and Whole Farm note do not expand during the transfer, preventing the ability to scroll down to the summary section.

As a reminder, there is a detailed description of all the updates to the NBS in the Version Updates tab of the NBS spreadsheet. It is also the most recent update posted on the website in the "Latest News" section.

If you have any questions regarding the new spreadsheet version, please contact:

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