

Fertilizers for corn.^{1,2,3}

	Years Following Sod	Fertilizer Nutrients to Be Added (lb./A) ⁴																		
		NITROGEN (N) ^{5,6,7}								PHOSPHORUS (P ₂ O ₅) Soil test phosphorus levels ⁸					POTASSIUM (K ₂ O) Soil test potassium levels ⁸					
		Type of Plowed Sod								VL ⁹	L ⁹	M ⁹	H ⁹	VH ⁹	VL ⁹	L ⁹	M ⁹	H ⁹	VH ⁹	
		Grass		Less than 50% Legume		Greater than 50% Legume														
No Manure	Manure	No Manure	Manure	No Manure	Manure	No Manure	Manure													
Soil group I —Clayey soils, fine-textured soils in northern New York, near lakes and along the Hudson River. Examples: Vergennes, Kingsbury, Hudson, Rhinebeck, Schoharie, Odessa.	1	10–30	10–30	10–30	10–30	10–30	10–30													
	2	50–100	10–40	30–80	10–20	20–70	10–30	70	60	40	20	0	50	40	30	20	0			
	3	70–110	10–50	60–100	10–40	60–100	10–40													
	4 or more	80–120	20–60	80–120	20–60	80–120	20–60													
Soil group II —Silty soils, medium- to moderately fine-textured soils of the central region. Examples: Cazenovia, Hilton, Honeoye, Lima, Ontario, Lansing, Mohawk, Chagrin, Teel.	1	10–30	10–30	10–30	10–30	10–30	10–30													
	2	60–100	10–40	50–90	10–30	40–80	10–30	70	60	40	20	0	60	60	40	20	0			
	3	80–120	10–60	70–110	10–50	70–110	10–50													
	4 or more	90–130	30–70	90–130	30–70	90–130	30–70													
Soil group III —Silt loam soils, moderately coarse-textured acid soils of the Southern Tier, glacial outwash. Examples: Barbour, Chenango, Palmyra, Tioga, Mardin, Langford, Tunkhannock.	1	10–30	10–30	10–30	10–30	10–30	10–30													
	2	60–100	10–40	40–90	10–30	30–80	10–30	70	60	40	20	0	80	70	50	25	0			
	3	80–120	20–60	70–110	10–50	70–110	10–50													
	4 or more	90–130	30–70	90–130	30–70	90–130	30–70													
Soil group IV —Loamy soils, coarse- to medium-textured soils of northern NY and the Hudson Valley. Examples: Bombay, Broadalbin, Copake, Empeyville, Madrid, Sodus, Worth.	1	10–30	10–30	10–30	10–30	10–30	10–30													
	2	60–110	10–50	50–90	10–30	40–90	10–30	70	60	40	20	0	120	80	50	25	0			
	3	80–120	10–60	70–120	10–60	70–110	10–50													
	4 or more	90-130	30-70	90-130	30-70	90-130	30-70													
Soil group V —Sandy soils, very coarse-textured soils on beach ridges, deltas, and sandy or gravelly outwash near mountains and the Hudson Valley. Examples: Alton, Colton, Windsor, Colonie, Elmwood, Junius, Suncook.	1	10–30	10–30	10–30	10–30	10–30	10–30													
	2	40–100	10–40	20–80	10–20	20–70	10–30	70	60	40	20	0	120	90	60	30	0			
	3	60–110	10–50	50–100	10–40	50–100	10–40													
	4 or more	70–120	20–60	70–120	10–60	70–120	10–60													

¹A more specific guideline will be obtained from a complete Cornell Morgan soil test analysis.

²For sorghum, sudan-sorghum hybrids, and millets, use 2/3 to 3/4 of the nitrogen rate in the table. Nitrogen may be applied preplant or as a postemergence application if planted after June 1.

³The nitrogen guidelines are based on a broad range of soils. A more accurate guideline for a specific soil, see Nitrogen Guidelines for Field Crops in New York nmsp.cals.cornell.edu/guidelines/nutrientguide.html.

⁴To avoid salt damage, do not use more than 80–100 lb./A of N + K₂O in the fertilizer band at planting.

⁵For nitrogen guidelines greater than 50 lb./A, apply a lower rate in the starter fertilizer (such as 10–30 lb. in the band at planting), and sidedress the remaining nitrogen when the corn is 6–15 in. high.

⁶Use the lower nitrogen rate for soils with a low yield potential. The optimum economic N rate for corn after soybean can be lowered by 20-30 lbs N/acre. This adjustment should be applied only for the first year of corn following soybean.

⁷For a more accurate estimate of the nitrogen contribution from manure (required for New York State CAFO permits), see Nitrogen Guidelines for Field Crops in New York nmsp.cals.cornell.edu/guidelines/nutrientguide.html.

⁸See Table 2.10.1 for the soil test values within each level.

⁹VL = very low; L = low; M = medium; H = high; VH = very high