

This card can help you determine your soil test categories, which you will need when using the University of Wisconsin's recommendations for P₂O₅ and K₂O fertilizer application rates; there are different application rates for each of the soil test categories.

To get started, you will need your soil test results for P and K in parts per million (ppm) from a Wisconsin DATCP certified soil testing lab along with information about your crops and soils.

The goal of the UW soil testing and nutrient applications guidelines program is to maintain soil test levels near optimum. This ensures maximum

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To determine your soil test **potassium (K)** category:

- 1) Choose the highest demanding crop in your rotation.
- 2) Choose the soil group for the predominant soil in the field.
- 3) Find your soil test category by using the analysis number for potassium from your soil test results.

Soil group	Soil test category					
	Very low (VL)	Low (L)	Optimum (O)	High (H)	Very high (VH)	Excessively high (EH)
----- soil test K (ppm) -----						
<i>demand level 1: Corn grain, Soybean, Clover, Small grains (but not wheat), Grasses, Oilseed crops, Pasture</i>						
Loamy	< 70	70–100	101–130	131–160	161–190	> 190
Sandy, Organic	< 45	45–65	66–90	91–130	—	> 130
<i>demand level 2: Alfalfa, Corn silage, Wheat, Beans, Sweet Corn, Peas, Fruits</i>						
Loamy	< 90	90–110	111–140	141–170	171–240	> 240
Sandy, Organic	< 50	50–80	81–120	121–160	161–200	> 200
<i>demand level 3: Tomato, Pepper, Brassicas, Leafy greens, Root, Vine, and Truck crops</i>						
Loamy	< 80	80–140	141–200	201–220	221–240	> 240
Sandy, Organic	< 50	50–100	101–150	151–165	166–180	> 180
<i>demand level 4: Potato</i>						
Loamy	< 80	80–120	121–170	171–190	191–220	> 220
Sandy, Organic	< 70	70–100	101–130	131–160	161–190	> 190

If the desired crop is not listed on the table or you are unsure of your soil group, consult UWEX publication A2809 *Nutrient Application Guidelines for Field, Vegetable, and Fruit Crops in Wisconsin's* tables 4.1 and 4.2.

economic yield and provides flexibility in nutrient management planning.

For soils that test greater than optimum, the objective of the nutrient application guidelines is to rely on the soil to supply the bulk of the nutrients needed for crop growth and to reduce the soil test level to optimum.

For soils that test less than optimum, the objective is to build-up soil test levels to the optimum category.



To determine your soil test phosphorus (P) category:

- 1) Choose the highest demanding crop in your rotation.
- 2) Choose the soil group for the predominant soil in the field.
- 3) Find your soil test category by using the analysis number for phosphorus from your soil test results.

Soil group	Soil test category				
	Very low (VL)	Low (L)	Optimum (O)	High (H)	Excessively high (EH)
-----soil test P (ppm)-----					
demand level 1: Corn grain, Soybean, Clover, Small grains (but not wheat), Grasses, Oilseed crops, Pasture					
Loamy	< 10	10–15	16–20	21–30	> 30
Sandy, Organic	< 12	12–22	23–32	33–42	> 42
demand level 2: Alfalfa, Corn silage, Wheat, Beans, Sweet Corn, Peas, Fruits					
Loamy	< 12	12–17	18–25	26–35	> 35
Sandy, Organic	< 18	18–25	26–37	38–55	> 55
demand level 3: Tomato, Pepper, Brassicas, Leafy greens, Root, Vine, and Truck crops					
Loamy	< 15	15–30	31–45	46–75	> 75
Sandy, Organic	< 18	18–35	36–50	51–80	> 80
demand level 4: Potato					
Loamy	< 100	100–160	161–200	> 200	
Sandy, Organic	< 30	30–60	61–90	91–120	> 120

If the desired crop is not listed on the table or you are unsure of your soil group, consult UWEX publication A2809 *Nutrient Application Guidelines for Field, Vegetable, and Fruit Crops in Wisconsin's* tables 4.1 and 4.2.

This publication is available from the Nutrient and Pest Management (NPM) program.

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