Table 1.2-4. Fertilizer recommendations. (Not to be used in place of a soil test.)

The recommendations in this table are to be used only if you are growing a crop different from that given on your report form. These soil test recommendations cannot be as specific as those on your report form. Detailed recommendations for all agronomic crops can be found on the Agricultural Analytical Services Laboratory website at www.aasl.psu.edu.

To use this table, follow these steps:

- 1. Choose the "Soil Test Level" column that best represents your soil nutrient levels.
- 2. From the "Crop" column, select the crop for which you want the recommendation.
- 3. Follow this line horizontally across the sheet until you come to the column selected in step 1. Your fertilizer recommendation is in this block.
- 4. The total amount of required plant nutrients is given. Application instructions, such as those for using a starter fertilizer, or fall versus spring applications, also are noted. Adjustments for expected yields different from those in the table are given below.

Adjustments to recommendations

EXPECTED YIELD—Adjust the recommendation in the table for a different yield goal by increasing or decreasing the recommendation in the table proportionally. For example: To determine a corn grain recommendation for an expected yield of 175 bu/A, multiply the 125 bu/A recommendation in the table by 1.4 (175 \div 125 = 1.4). For the low P and low K category, the new recommendation is 180-125-125.

PREVIOUS LEGUME—See Table 1.2-8 to adjust the N recommendation for a previous legume crop.

MANURE—These recommendations do not take into consideration plant nutrients in manure applied either previously or to the current crop. To determine how to adjust the recommendations for fertilizer nutrients in manure, see the "Manure Nutrient Management" section.

*Fertility recommendations given as N-P₂O₅-K₂O lb/A.

Crop (expected yield)	Soil test level*									
	Low P, Low K	Low P, Opt K	Low P, Hi K	Opt P, Low K	Opt P, Opt K	Opt P, Hi K	Hi P, Low K	Hi P, Opt K	Hi P, Hi K	
Corn grain (125 bu/A)	130-90-90	130-90-30	130-90-0	130-50-90	130-50-30	130-50-0	130-0-90	130-0-30	130-0-0	
Corn silage (21 T/A) or sorghum- sudangrass (25 T/A)	150-120-260	150-120-230	150-120-0	150-110-260	150-110-230	150-110-0	150-0-260	150-0-230	150-0-0	

Notes: Corn grain, corn silage, sorghum-sudangrass: Use 100 to 300 lb/A of a starter fertilizer. On soils with excessive nutrient levels or for late planting on soils with optimum or higher nutrient levels, a starter fertilizer may not be necessary. For corn following a legume, reduce the N recommendation according to Table 1.2-8. For more efficient utilization, apply 50 to 90 percent of the nitrogen when the corn is 10 to 20 inches tall. When double cropping corn with rye, you can apply an additional 50 to 90 lb/A of nitrogen to the rye. For sorghum-sudangrass, apply all of the fertilizer before seeding.

Alfalfa (5 T/A)	0-130-280	0-130-250	0-130-0	0-80-280	0-80-250	0-80-0	0-0-280	0-0-250	0-0-0
Clover, trefoil, crownvetch (4 T/A)		0-120-160	0-120-0	0-60-190	0-60-160	0-60-0	0-0-190	0-0-160	0-0-0

Notes: Alfalfa, clover, trefoil, crownvetch: For establishment, especially under adverse conditions, banding 100 to 300 lb/A of a starter fertilizer may be beneficial. For no-till, use no starter nitrogen.

Cool-season	200-110-230	200-110-200	200-110-0	200-60-230	200-60-200	200-60-0	200-0-230	200-0-200	200-0-0
grasses:									
orchardgrass,									
bromegrass, timothy,									
reed canarygrass (4									
T/A)									
1	ı	1	1	1	1	1	1	1	1

Notes: Grasses: For establishment, especially under adverse conditions, banding 100 to 300 lb/A of a starter fertilizer at planting may be beneficial. Apply 30 lb of nitrogen in late summer of the establishment year. For established stands, split the nitrogen into three applications before each cutting: spring, early summer (with P2O5 and K2O), and early fall. Base the amount applied at each application time on the expected yield for the next cutting.

Soybeans (40 bu/A) 0-80-110 0-80-60 0-80-0 0-40-110 0-40-60 0-40-0 0-0-110 0-0-60 0-0	-0-0
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Notes: Soybeans: Do not use a starter fertilizer with soybeans. When double cropping, add the P and K to the barley.

Wheat** (60 bu/A) or rye (40 bu/A)	60-90-120	60-90-110	60-90-0	60-60-120	60-60-110	60-60-0	60-0-120	60-0-110	60-0-0
Notes —At planting to apply more than 15 ll apply the N any time	b of nitrogen or	30 lb of nitrogen							
Barley** (80 bu/A)	60-90-150	60-90-120	60-90-0	60-50-150	60-50-120	60-50-0	60-0-150	60-0-120	60-0-0
Notes: At planting tir apply more than 15 ll apply the N any time	b of nitrogen or	30 lb of nitrogen							
Oats, grain sorghum** (80 bu/A)	60-90-140	60-90-120	60-90-0	60-70-140	60-70-120	60-70-0	60-0-140	60-0-120	60-0-0
Notes: Oats and graithrough the drill. App					ot apply more th	an 20 lb of nit	rogen or 45 lb	of nitrogen + 1	ootash
*Mehlich 3 soil test le	evels used to cal	culate the recom	mendations in	this table are as	s follows:				
Test level	P (ppm)	K (ppm)							
Below optimum	15	50							
Optimum	30	100							
Above optimum	60	200							

of serious potential for lodging, it is very important to take the full credit for manure and residual N from previous plications for small grain crops.