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SKIPPING A PHOSPHORUS OR POTASSIUM APPLICATION

A farmer may ask: What happens if I skip a P or K application this year? The answer to that question depends a lot on the starting point. What are your soil test levels? Have you built them up and been maintaining them or have you been keeping them lower in order to capture short term gains from annual applications?

Listed below are some warning signs that skipping an application could result in yield losses this year:

- **You've been using half to a third of the recommended rate, applied as a band.** This practice relies on the increased plant use efficiency of the banded nutrients to reduce rates. These rates are often below those needed to maintain soil fertility levels. Following this recommendation for many years can deplete soils of P and K. It can also limit yield unless combined with an occasional higher rate broadcast application.
- **You've been banding lower rates of nutrients for only some of the crops in your rotation.** An example is banding low rates of P and K for corn, but not applying any additional fertilizer to the rotational soybean crop. This practice draws down fertility, particularly in the soil between the bands. Problems can especially show up when the row spacing of a crop doesn't match the spacing of the fertilizer bands. An example is soybeans planted in 7.5 in. rows in a field where 30 in. wide bands of fertilizer were applied for corn. Soybeans between the bands won't be able to access the banded nutrients and have to rely mostly on the depleted soil between the bands.
- **You've skipped one or more applications before.** Soil supplies can last only so long before they need to be replenished.
- **You've just rented a new piece of ground.** The fertilization history is probably unknown and previous management may not have been up to par. After all, the previous renter isn't farming it anymore.
- **It's been awhile since you've taken soil tests.** If you can't find the last report, it's probably time to reassess. You don't want to fly blindly, especially considering the costs now.

On the other hand, if you've been keeping up with maintenance applications and your soil tests are higher, your soil may already have all the P and K the crop needs this year – allowing you to skip. **Just remember that what comes out must eventually go back in to sustain fertility.**

– TSM –

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Abbreviations in this article: P = phosphorus; K = potassium.