

David Hallauer

District Extension Agent
Crops & Soils/Horticulture

Soybean Nutrient Removal

In corn/soybean rotations, our focus is typically on corn. That's not necessarily wrong. The need for a fungicide? Greater in corn. Nitrogen (N) needs? Unless you're in a very high yield environment, focus on the plant working for you (via nodulation) rather than applying N fertilizer. What *does* deserve attention in soybeans, however, is nutrient management beyond N.

A 60 bushel per acre soybean crop removes almost 50 pounds of phosphorous (P) and closer to 80 pounds of potassium (K). By comparison, a 180 bushel per acre corn crop removes more P (60 pounds), but less than 50 pounds of K. Soybeans are also high users of sulfur, and while you may not see much response to S in soybeans but it could affect subsequent crops. Zinc and in some instances, Boron deserve at least a little attention as well.

What kind of attention? For starters, apply the same fertility management principles to soybeans as you would to corn: applying what's needed in relation to soil test levels. Soybeans are an 'elastic' crop, but they can't overcome low fertility levels all on their own. Give some thought to planting conditions, too. Planting soybeans earlier? One of the reasons for the focus on starter fertilizer in corn has been because of cooler soil temperatures at planting. When planting soybeans in to similar conditions, you may see increasing responses to enhanced fertility management practices like starter fertilizer, particularly on lower testing soils or medium testing soils with very high yield potentials.

For information on soil test removal levels for soybeans – and other crops – check out our *Soil Test Interpretations and Fertilizer Recommendations* publication available from any District Office (or e-mailing me) or online at: <https://bookstore.ksre.ksu.edu/pubs/mf2586.pdf>.

How Low Should You Go?

Good turfgrass health depends on many things. Fertility and weed management are the two we spend the most time addressing, but mowing height is important as well.

For most of the season, mow Kentucky bluegrass lawns at a height of two to three inches and tall fescue lawns at three to three and a half inches. That's a good height to keep grass growing well, while keeping the stand healthy and competitive against weeds, drought, etc...

However, if you want to drop the deck down a little lower to kick off the year, that's probably fine. In fact, mowing lower than normal the first mowing or two may actually help speed green up by removing old, dead grass and allowing the soil to warm up more quickly. Just don't forget to raise the deck back up after those first couple of cuttings.

What happens if we don't return to normal heights after a couple mowings? Weeds like crabgrass, for example, need light to germinate. Higher mowing heights keep soil surfaces shaded, discouraging crabgrass germination. Higher mowing heights also equal deeper rooting depths. A deeper root system means a more drought-resistant turf.

Make sure you measure deck height as you get started this year. Want to leave it low? Go ahead, but don't leave it for long. Return to optimum height after the second mowing – or before.