Letters to the Editor

Plant growth differences between the *Kitchen Sink treatment (left) vs. untreated beans (right).

approach was not economically profitable on average.

An average yield gain of 2.1 bu/ac was achieved when a variety that was one maturity zone (i.e., +200 crop heat units) longer than recommended was planted in any given area. This translated to an approximate harvest delay of eight days in the fall. This strategy proved to be a viable way to increase soybean yields and profits. If winter wheat is to be planted following soybeans, growers need to consider the wheat planting date. Planting wheat after the optimum planting date window results in an average yield loss of 1.1 bu/day in Ontario.

There was no statistical difference in moisture, oil, protein, germination, or visual seed quality on average. There was a slight seed size increase to the *Kitchen Sink treatment in this study. The seed size was also slightly higher for the longer-day bean varieties. This could explain part of the increased yield.

In the presence of phomopsis seed decay (1 in 15 trials), germination was increased with in the *Kitchen Sink treatment. This was likely from the use of a foliar fungicide. In the presence of significant white mold disease pressure, seed quality decreased with the use of the *Kitchen Sink treatment for the adapted variety. This was likely due to the higher seeding rate used in this treatment.

Intensive management of soybeans is an effective way to increase yields and in some cases seed quality, especially seed size. However, yield increases did not offset the cost of the inputs used in this study.

Project contacts
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Dear Editor:

It is rather distressing that a publication of our scientific organization would continue to propagate imprecise information such as [measuring soil quality] (EDITOR'S NOTE: see the March–April 2014 Crops & Soils magazine cover story). There never was anything as “measuring soil quality” when I went to school, and I have not been able since to learn how to “measure soil quality” that there are numerous quantitatively measurable qualities of soils, but it appears to me that even now, “soil quality cannot be measured. If that is so, it is misleading that the American Society of Agronomy and Soil Science Society of America should continue to propagate such an impression, rather than setting the record straight.

Sincerely,

Henry A. Fribourg, Ph.D., Professor Emeritus of Crop Ecology, University of Tennessee, Knoxville

Response

Measuring soil quality is about assessing the quality to support biological life in the soil and above the soil. In the 1990s, there was a scientific debate about whether soil scientists could define quality, let alone measure it, and they couldn’t agree. Even today, if you ask 10 different people to define quality or health, you get different definitions, and all will be right from their perspective. Whether it be soil quality or another term isn’t important if landowners and producers learn how to assess it and improve it—and the term quality resonates well.

What we need on the farm is a practical way to assess the soil and its capability to support soil health and crop production. USDA-NRCS has compiled suggestions for 12 on-farm assessment tools to describe soil quality (www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/health/assessment/?cid=nrcs142p2_053873). From a practical field perspective, I like the term quality because you can’t have good biological health without good quality. If soil pH, salt content, or electroconductivity is off or organic matter content is low, you can’t achieve good health, so it is important to measure quality parameters. While soil scientists may not agree on what makes a good quality soil, the USDA already latched onto this term as a way to assess a soil's quality.