

Blow Out

by Matt Hagny

TECHNIQUE

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Occasional blasts of strong winds from storms can occur anywhere, but on the western Great Plains, shrieking winds of 40 – 70 mph are almost a weekly event, particularly in March & April. While we half-way expect the tillage cropland to blow away in these events (unless adequately covered by a growing winter crop, such as w. wheat), no-tillers sometimes have problems, too, particularly with crops seeded in the early spring—field peas, chickpeas, safflower, (spring) oats, etc. After the drill has placed these seeds, much of the standing stubble has been knocked down, letting the wind get at the soil surface—and soon taking all the fine residue off the field, and perhaps a layer of soil as well, especially where the drill opener has loosened the soil in the row.

Most no-tillers hate this situation, knowing full well that the mulch cover is essential to their success. The 2011 up-tick in acres of field peas in northwest Kansas is a good example, with 2010 corn residue and '09 wheat stubble blowing off the field entirely in the days following pea drilling, to the horror of Brian Vulgamore, Nathan Pearce, Dietrich Kastens, and other no-tillers in that region. However, the *milo* stubble didn't blow nearly as badly as corn stalks, probably due to the greater number of stalks that can evade the drill openers (the producers mentioned are all running JD 1890s on 10-inch spacing, with narrow gauge tires). However, Kastens notes that where the milo went down and was cut low, the blowing is just as bad as the corn stalks.

This doesn't come as a surprise to Mike Arnoldy, who's been no-tilling for 20 years at Kennebec in south-central S. Dakota, and has fought the fierce winds ever since. Having tried all sorts of tricks (including Indian-head lentils scattered amongst his growing sunflower crop), Arnoldy has found only two that work. So, he tries to make sure he grows milo instead of corn ahead of chickpeas (which are seeded with an 1890 also, with narrow gauge wheels). Arnoldy still grows corn elsewhere in his rotation (after wheat): "The milo does better in the dry years, even when following sunflowers. Corn does better in the wet years. If you grow both, you've got it covered either way." Arnoldy has been steadily increasing his milo acres since '03. His other trick is to delay seeding as long as possible in stubble types apt to blow, trying to get the new crop up quickly to provide some new cover.



Photo by Matt Hagny

Topsoil blown off a field of wheat following field peas (both on 7.5-inch rows), which had followed milo on 15-inch rows.

Another option is to avoid the problem entirely—by *not* planting the early spring crop types, which is the favored method of longtime no-tiller Gary Maskus of Arriba, CO. Instead, Maskus focuses on crops with later seeding dates—such as proso millet—to go into the more fragile stubble such as sunflower stalks. This evades the worst winds (early June vs March & April), and the proso easily has the soil protected again in 10 – 12 days. Maskus says, "I adjust certain crop sequences based on previous crop success or lack thereof—for instance, I'll only plant sunflowers in corn residue from a good crop; if the corn crop was poor I usually skip flowers and go straight to proso. I've been leery of peas in my rotations due to how little residue will be left following them [and no upright stalks to catch snow]."

Maskus notes that he can grow reasonably good wheat crops for 2 years following proso, plus he has the option of growing corn after proso. Pearce has reached similar conclusions: "It only takes a couple inches of rain after proso harvest to have an average or better wheat crop. Worst-case scenario, if it doesn't rain in the fall after proso, you plant corn in the spring. Our corn behind proso has been 90% to 100% the yield of corn behind wheat." Despite the clunkiness of some of these options, Pearce, Kastens, Vulgamore, Maskus, and Arnoldy all concur that chem-fallow is the worst choice of all. ♣

Arnoldy was featured in the Dec '02 issue, and Maskus in Sept. '05.