



Dealing with Weeds in Seedlots

by Doug Brede, Ph.D.



Jacklin Seed's farmers are some of the best in the world at spotting and removing weed contaminants from seed fields. In this photo a field worker is manually removing a grassy weed. His yellow satchel is for carting off the plant, so it doesn't discharge its seed where the combine could pick them up.

10-year low. Farmers just don't want to grow grass when they can profit from more lucrative crops.



Downy brome (Bromus tectorum) is a winter annual found in bluegrass seedlots. This photo shows what it looks like in a young sod production field. It is an upright plant, growing 4 to 20 inches tall when unmowed, producing stickers that cling to your socks. When planted in a lawn or sod farm, it produces a small, stemmy plant that flowers in early June and subsequently dies. Old-timers refer to this plant as cheatgrass, but cheatgrass is actually a different species.

That strange rumbling noise you have heard over the last few months is the sound of the grass seed industry turning over on its ear. Two years ago seed was abundant in everyone's warehouse, and consumers had their pick of the cleanest, most weed-free lots in inventory. However in short order the market has dramatically flipped. With winter wheat at \$9 a bushel and other commodities equally high, grass seed production has dropped to a near

All of the grass seed suppliers are in the same boat: We are winding down to our last remaining lots of many varieties. And there's a reason why these last lots are remaining: Some contain weed seed.

Fortunately many of the weeds in grass seed are not a problem in lawns. But others are. Knowing the difference is key.

The purpose of this article is to give you tips to become a savvy consumer of weedy seedlots. Thankfully, the majority of weeds in seedlots are not as frightening as they might sound.

What weeds to worry about

Thumbing through the field guide, "Weeds of Eastern Washington," the one thing you'll notice is few similarities with the weeds you commonly observe in Midwest or East Coast lawns. In seed production, you'll see oddities such as wind grass, pineapple weed, and ventenata. Weeds in grass seed production are a breed all their own, uniquely adapted to the sowing/harvest cycle of commercial production.

A number of grass seed weeds are winter annuals.

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Rattail fescue (Vulpia myuros) is a weed in fescue seedlots. Being an annual, it is not much of a problem in lawns or sports turf. Its appearance mimics fine fescue. Seed of rattail is produced commercially for use as a nurse crop for slower germinating grasses. But having it as a contaminant in a fescue seedlot kicks it out of certification, so seed farmers go out of their way to remove it. Unmowed rattail can grow up to 2 feet tall with narrow, upright leaves.

Factors that determine whether a weed in a seedlot will be a problem or not

- Location – does this weed persist in your area or will it fry out in summer?
- Is it a perennial or annual?
- Turf use – golf, sod, home, roadside
- Weed count per lb. (= plants/ft²)
- Whether the weed is commonly found in your area
- The grass species that it's in

Weeds, continued

Why? Because they mimic the pattern of germinating in the fall and reproducing in the spring, like you see in a seed production field. When these weed seeds are planted on a sports field or lawn, they undergo their normal flowering cycle, emerging in the fall and flowering in the spring. If they are subjected to regular mowing, most are destroyed. Any remaining plants will have their seedheads mowed off and will fail to reproduce. The only thing you'll notice is a short-lived tan clump that disappears by July.

Perennial weeds are less common in grass seed production but are far more serious in lawns. The reason they are infrequent in seed is that production fields are periodically cultivated and rotated into other crops, which destroys many perennials.

Paying attention to the weed seed count on the analysis tag is important in understanding the magnitude of a contamination. Here is how you can calculate the impact of weed seed count on your lawn:

Say for example your seedlot contains 40 weed seed per pound. (Note that 40 seeds per pound means the seed analyst found one weed seed in her sample). And you plan to plant at 1 pound per thousand square feet of lawn. That would mean your maximum exposure is 40 weeds in that lawn. In actuality, not all weed seed will germinate in a dense turf environment. Most will be outcompeted. Typically, you might see 10 weeds from that lot.

Weeds that are indigenous to your planting site are also less of a concern. If your seedlot contains pigweed, plantain or dandelion, there's probably some of those already in the soil and the consumer will not be able to distinguish. Plus, a normal Trimec application at four weeks will nix the seedlot weed as well as the ones that came from the soil. It's that "I've-never-seen-that-weed-before-in-my-life" weed that causes concern.



Wind grass (*Apera spica-venti*) growing along the perimeter of a ryegrass production field. In this photo, the wind grass is the shorter, almost turf-looking grass in the center. During much of the springtime, it remains short and innocent, and then bolts to full height just as the crop is being harvested. Wind grass is mainly found in bluegrass seed because its seed size is nearly identical and is hard to screen out.



Annual ryegrass (*Lolium multiflorum*) is a challenging weed in seedlots. Having even one percent annual rye in a lot can make for some pretty ugly turf (see photo). Higher amounts (>20%) can literally turn your turf into a solid stand of annual rye, which will die on cue next summer. Annual ryegrass is scattered throughout the Willamette Valley. The challenge results because, in small amounts, annual rye is listed as "other crop" on the analysis tag and not under weeds. Working with a knowledgeable seed advisor is a good way to circumnavigate problems with annual ryegrass contamination.

But remember, oddball weeds can originate from garden soil just as easily as they can from a seedlot.

In conclusion, it is important to remember the textbook definition of a weed: "a plant out of place." Not all weeds found in seedlots are problematic to fine turf. Some, like rattail or alkaligrass, actually contribute a degree of benefit to the turf. Even a problem weed like *Poa annua* is no problem if planted in an area that will not be closely mowed. Working with a seed specialist can help you put the right seed in the right place. 🌱

Alkaligrass (*Puccinellia distans*) is a common plant in western areas with high pH, saline soils. The bottom left photo shows alkaligrass invading a bare spot (foreground) on a Utah sod farm. As a seed contaminant, alkaligrass will produce a small, fine-bladed clump, reminiscent of fine fescue (lower right photo). This clump will persist only on sites with high pH or salt. Otherwise, the alkaligrass is quickly outcompeted by ryegrass or bluegrass. In East Coast turf, the clumps disappear within months. Some turf managers incorporate a small amount of alkaligrass in their seed mixtures as a hedge against deicing salts used on sidewalks and drives.

