ALFALFA WINTERKILL IN 2017
Mark McCaslin, VP of Research & Development, Forage Genetics International

Although many people in the Midwest considered our last winter to be “mild”, there were sporadic areas in South Dakota, Minnesota, Wisconsin, and Iowa where established alfalfa stands suffered moderate to severe winter injury. Two factors which may have contributed to this were: 1) a very late and mild fall – encouraging some producers to take a late harvest, and 2) record rainfall during the growing season - leading to wetter than normal soils going into winter. These two factors may have put plants in a condition of low to moderate stress going into winter.

Alfalfa winter injury is conditioned by plant health, the extent, duration, and timing of cold temperatures, and depth of insulating snow cover. Although average temperatures in the Midwest were above average last winter, we had two episodes of below zero weather, one in mid-December and another in mid-January. There were many areas without snow cover for the first blast of cold air, and with limited snow cover for the second.

At the West Salem, WI, and Boone, IA, Forage Genetics research stations this spring we saw classic winter injury-related stands and spring vigor differences between varieties in forage yield trials. We were pleased to see that WL commercial and FGI experimental varieties with a winter survival score <2.0 came through the winter with little to no damage. There was, however, significant stand loss and lower spring vigor for varieties with higher winter survival scores, or those without scores reported.

The photo taken April 15, 2017, at FGI’s West Salem, WI, research site. This was a 2015 seeded trial with a competitor check variety (FD3) in the center and on both sides are HarvXtra® Alfalfa with Roundup Ready® Technology (FD4) experimental varieties with WS index <2.

Breeding for improved winter hardiness and persistence pays dividends in winters like this. In making your variety choice for planting this fall or next spring, look for good multiple pest resistance to ensure plants are healthy, and select a variety which combines a low winter survival index (i.e., high winterhardiness) with high forage yield potential (e.g., high yielding FD4 types).