

By Dr. Jerry Wilhm Senior Research Manager

Splitting fertilizer applications can be an important aspect to a crop nutrition plan that is effective and economical. One in-season application option is sidedress fertilizer in corn. This usually means nitrogen, but sidedress is an excellent opportunity to provide other nutrients as well. You are already in the field and maybe there was something that was not applied during planting, like phosphorus. An experiment conducted at the North Central Research Station (NCRS) looked at a field with only 7 ppm soil test phosphorus. We applied 5 gal/A of Pro-Germinator® and 5 gal/A of Sure-K® at planting (this is the maximum AgroLiquid fertilizer recommended for in-furrow placement). Putting an extra 2 gal/A of Pro-Germinator at sidedress along with the 35 gal/A of 28% UAN with eNhance™ provided an extra 13.4 Bu/A. This increase demonstrates again what an application of the missing link can do. We applied other nutrients in other treatment plots without much of a yield increase. We concluded that these other nutrients were not able to influence yield in the absence of adequate phosphorus. We are repeating this experiment in 2019 and are including Pro-Germinator plus some other nutrients to see if there is an additive effect.

We also conducted an experiment in the Williamette Valley in Oregon on a perennial ryegrass seed production plot. This area is a leading producer of grass seed, growing 85% of perennial ryegrass used in the US and 40% of that seed used in the world. We worked with Precision Agriculture Research to conduct this experiment. One of the hazards of growing perennial ryegrass seed is that the grass gets tall and heavy with seed

Adding Pro-Germinator at sidedress in low North Central Research Station - 2018	<i>ı</i> -P Soil
Sidedress: 35 gal 28% with eNhance	Bu/A
Sidedress N only Sidedress + 2 gal Pro-Germinator	160.7 174.1

at the top resulting in lodging or falling over onto the ground before harvest. This makes harvest difficult as well as causes seed loss. To prevent this, a plant growth regulator called Palisade® EC was sprayed on at stem elongation. It shortens stem elongation, enabling better standability. We found that an addition of Sure-K along with the plant growth regulator can further improve standability and increase yield. The experiment showed the addition of Sure-K to the Palisade® application did improve standability and seed yield.

Effect of Foliar-Applied Sure-K on Perennial Ryegrass Seed Production Precision Agricultural Research. Amity, OR					
	% lodging* Seed P		Seed Produ	oduction (lb/A)	
Treatment	2017	2018	2017	2018	
Sure-K + Palisade (3 gal + 1.5 pt/A)	3.5	2.8	2777	2292	
Palisade alone (1.5 pt/A)	25	7.4	2696	2181	
(Difference:	-21.5%	-4.6	+ 81 lb	+111 lb)	
Untreated control:		92		1531	
* - Average visual estimation of plant lodging in plots.					
2017: 52 Days after treatment; 2018: 32 Days after treatment.					

Sidedress can provide nutrients when the crop needs it. AgroLiquid experts can help you identify what your crop may need at that stage of growth, and how you can economically meet that need. Find an AgroLiquid representative near you at agroliquid.com.