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Cereal Rye Impacts on Weeds

There are lots of reasons we like to see cover crops get well established in the fall: grazing days increase, soil erosion mitigation is enhanced, etc... With surface soil moistures across NE Kansas right now in the tank according to the Kansas Mesonet, some of our fall seeded cover crops *might* be a little slow to get started – and even then, might emerge unevenly or at the very least not provide the consistent cover we'd like to see from them.

In addition to the aforementioned reasons we plant cover crops, another benefit we've seen from them is in the area of weed suppression. A study conducted in 2021/2022 across the upper Midwest looked at cereal rye in corn-soybean rotations to get a better idea of these benefits. Their findings are encouraging. If soybeans could be planted into green standing cereal rye, biomass production of the cover crop increased by 33 percent as compared to early termination. This increase in biomass production in turn provided a 44 percent reduction in Palmer Amaranth density as compared to straight no-till.

It wasn't *all* perfect. If stands are compromised in any way, yields in the study were reduced, making planter settings and managing planting time moisture appropriately key factors in making the system work, but the study does show the value to weed suppression a cover crop can provide – including delaying the need for postemergence herbicide applications. It also provides a nice tool for reducing palmer amaranth density to aid with flexibility in timing of postemergence applications as well as providing a mechanism to hopefully help slow resistance to herbicide applications.

With luck, moisture yet this fall will get cereal rye plantings up and going and that weed benefit will be realized. If moisture, herbicide carryover, etc... limit that establishment, however, have a plan in place for preemergence programs and appropriate cover crop termination next spring.