Integrated Weed Management in Dryland Wheat Production Systems

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Herbicide resistance is an increasing problem for weed management. We have lived through a period when highly effective herbicides have allowed growers to almost rely on herbicides exclusively for weed management. Herbicide resistance and a rapidly dwindling pipeline of new herbicides are forcing growers to rethink weed management. Integrated weed management strategies can assist in the control of weeds and slow the development of herbicide resistance. I will discuss how herbicide resistance develops and how integrated management can be used to help manage some of our more troublesome weeds in dryland wheat productions systems. The presentation will focus on the best management practice of using two effective herbicides with different mechanisms of action to manage weeds as part of an integrated weed management system. Although my examples will be taken from dryland wheat production systems in the US Pacific Northwest, the principles I will present can be applied to many agricultural systems in North America.