



Colorado State University

Extension

Crop Strategies on Burned Acres

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Recent winds coupled with fire damaged crop land in some areas can pose a serious threat to future growing crops. Strategies when addressing this issue can ease further damage to both soils and crops grown.

The first order of business is to address soil erosion potentials. Fire damage to a field removes most of the organic matter, leaving nearly bare ground. Light colored, sandy type soils are more prone to wind erosion than are darker colored, heavier clay soils. Regardless of soil type, a cover crop should be established to prevent future soil erosion. Cool soils this time of year dictates that cool season plants be employed. A number of options exist with oats, barley, rye, and wheat all being excellent choices for cover, this time of year. These plants are cool season grasses that establish quickly and grow well in cool spring weather conditions.

One satisfactory option includes planting these crops using no-till strategies, meaning drill 2 inches deep without tillage. If dry soil conditions exist, plant slightly deeper if moisture can be found, and increase the planting rate by about 15%. Keep in mind that although an excellent stand is not necessary, adequate plants need to be established to hold the field during wind events.

Additional emergency soil erosion control strategies can include:

1. Emergency tillage to produce ridges and clods in an effort to make the field more resistance to wind erosion.
2. Application of livestock manure to trouble spots with a minimum of 6 tons per acre.

3. If irrigation is an option, apply water to increase the soil moisture levels, prior to emergency tillage.

If an adequate cover crop can be established, two options exist: grow out the cover crop and harvest for seed or forage; or allow the cover crop to grow to approximately 6-8 inches, then control it with a herbicide. A cash crop may then be planted directly into the covered field with a planter equipped to handle crop residues. Be sure to check with your crop insurance agent regarding cropping options using a cover crop established. Also, don't plant a field with irrigated cropping plans unless the irrigation system is functional. Delays with repair parts and labor may cause the field to be dryland during the growing season.

If an irrigated crop is planted into burned acres, increase fertility rates slightly. N, P, and K levels may need to be raised a small amount to compensate for organic matter levels that will not be contributing to fertilizer releases during the growing season. My best estimation is to raise Nitrogen rates by about 25 lbs/a, and Phosphorous and Potassium levels by about 15 pounds per acre. Watch the crop for color during the season and add additional Nitrogen if yellow plants begin to appear.

Addressing damaged crop land issues early, will limit crop production problems later.