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FACTORS INFLUENCING GREATER SANDHILL CRANE NEST SUCCESS AT MALHEUR NATIONAL WILDLIFE REFUGE, OREGON¹

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Abstract: We used logistic regression to model the effects of weather, habitat, and management variables on Greater Sandhill Crane (*Grus canadensis tabida*) nest success at Malheur National Wildlife Refuge in southeast Oregon. We monitored 506 nests over 9 breeding seasons. Mean apparent nest success was $72\% \pm 4\%$ and varied from 51 to 87%. Nest success was lower one year after a field was burned and declined with nest initiation date. Nest success was higher during warmer springs, in deeper water, and in years with moderate precipitation. Haying, livestock grazing, and predator control did not influence nest success. We suggest the short-term consequence of burning on nest success is outweighed by its long term importance and that water level management is the most important tool for managing crane nest success. Finally, studies of brood ecology are needed to develop a more complete picture of crane nesting ecology.

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Key words: breeding ecology, *Grus canadensis tabida*, land management, Oregon, predator control, sandhill crane, weather.

¹See Ivey, G. L., and B. D. Dugger. 2008. Factors influencing nest success of greater sandhill cranes at Malheur National Wildlife Refuge, Oregon. *Waterbirds* 31:52-61.