

Limited Irrigation Adoption and Water Leasing in Colorado

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Abstract. Rapid urban growth, drought, ground water depletion, and a semi-arid environment with the increasing global climate change have impacted the global sustainable water availability. Declining groundwater in Colorado River basin and enforcement of augmentation plan for the tributary and growing municipal and Industrial (M&I) water supplies have created an adverse impact on conventional agricultural practice in Colorado. Burgeoning populations are increasing municipal water demand in the West, a phenomena that is changing rural and urban economies. Agricultural water is a preferred source for meeting growing demands, but transfers often require formerly irrigated land to be fallowed removing a key base industry from rural regional economies. It is no surprise that large scales transfers are greeted with highly-charged, emotionally contentious debates. One alternative to 'buy and dry' strategies is gaining interest. The alternative allows farmers to lease a portion of their water portfolio to cities. Leased water is generated as farmers reduce the consumptive use of their cropping operations by limiting irrigation. Examples of limited irrigation strategies include timing irrigations during vegetative growth and adopting innovative crop rotations. Importantly, the limited irrigation cropland remains in production so that rural economies suffer reduced effects vis a vis buy and dry activity. But will farmers adopt limited irrigation strategies if water lease markets materialize? This research examines producers' potential adoption of limited irrigations strategies and their perceptions of lease arrangements. Potential adoption is gauged from a producer survey of South Platte River Basin farmers in Colorado, a basin experiencing significant population growth in the midst of significant agricultural production.