

**Section 8 of 22 (8j – Using IWM to achieve Energy Conservation)**

<b>A Holistic IWM Plan integrates various agronomic practices to achieve energy conservation through the proper mgmt. of all inputs</b>				
<b>INPUTS</b>	<b><u>Integration</u> of IWM Plan with other Mgmt. Practices</b>	<b>Benefits of IWM</b>	<b>Para- meter</b>	<b>% of total cost</b>
<b>Irrigation Water</b>	Irrigation is based on crop consumptive use, soil water holding capacity, irrigation scheduling & monitoring.	Higher irrigation efficiencies (reduced pumping costs); reduced water use; acceptable salt management; higher yields and crop quality.	<b>Pumping</b>	
<b>Irrigation Technology &amp; Labor</b>	Irrigation technology and its management are designed to meet the unique crop, water quality/quantity, economics & site-specific conditions.	Substantial reduction in labor requirements; increased irrigation efficiencies; protection of surface & ground water quality; higher yields and crop quality.	<b>Irrigation System &amp; Labor</b>	
<b>Nitrogen</b>	Split-applications of N (based on soil test & NMSU fertilizer recommendations), with tissue test to assess fertility program.	Substantial reductions in N losses through leaching, volatilization and denitrification; protection of surface & ground water quality; reduced N inputs; higher yields & quality.	<b>Units of N/acre</b>	
<b>Phosphorus</b>	Applications of P are based on soil test & NMSU fertilizer recommendations & the NRCS Phosphorus Index	Protection of surface & ground water quality; achieve nutrient balance; reduced P inputs; higher yields; proper use of manure/effluent.	<b>Units of P<sub>2</sub>O<sub>5</sub>/acre</b>	
<b>Potassium</b>	Applications of K are based on soil test & NMSU fertilizer recommendations; plant tissue test monitors effectiveness of fertility program.	Significant reduction in K inputs; attainment of nutrient balance; protection of surface & water quality; higher yields & quality.	<b>Units of K<sub>2</sub>O/acre</b>	
<b>Soil Amendments</b>	Application of soil amendments are based on water quality, soil test & NMSU recommendations (and are correlated to soil texture & structure)	Prevents and/or remediates sodic and saline-sodic soils; substantial reduction in amendment use & cost; protects surface and ground water quality.	<b>Lbs./acre</b>	
<b>Pesticides</b>	Applied according to NRCS Conservation Practice Standard 595; uses pest scouting techniques.	Protects surface and ground water quality; breaks pest and disease cycles; higher yields and quality.	<b>Oz./acre (a.i.)</b>	
<b>Herbicides</b>	Crop rotations, tillage operations & other agronomic practices are used with herbicides to manage weeds.	Protects surface and ground water quality; reduces weed pressures; higher yields and quality.	<b>Oz./acre (a.i.)</b>	
<b>Tillage Operations</b>	Tillage is based on achieving a positive Soil Conditioning Index.	Reductions in fuel cost; higher soil organic matter (improved soil structure and quality).	<b>Gal. (fuel) /acre</b>	