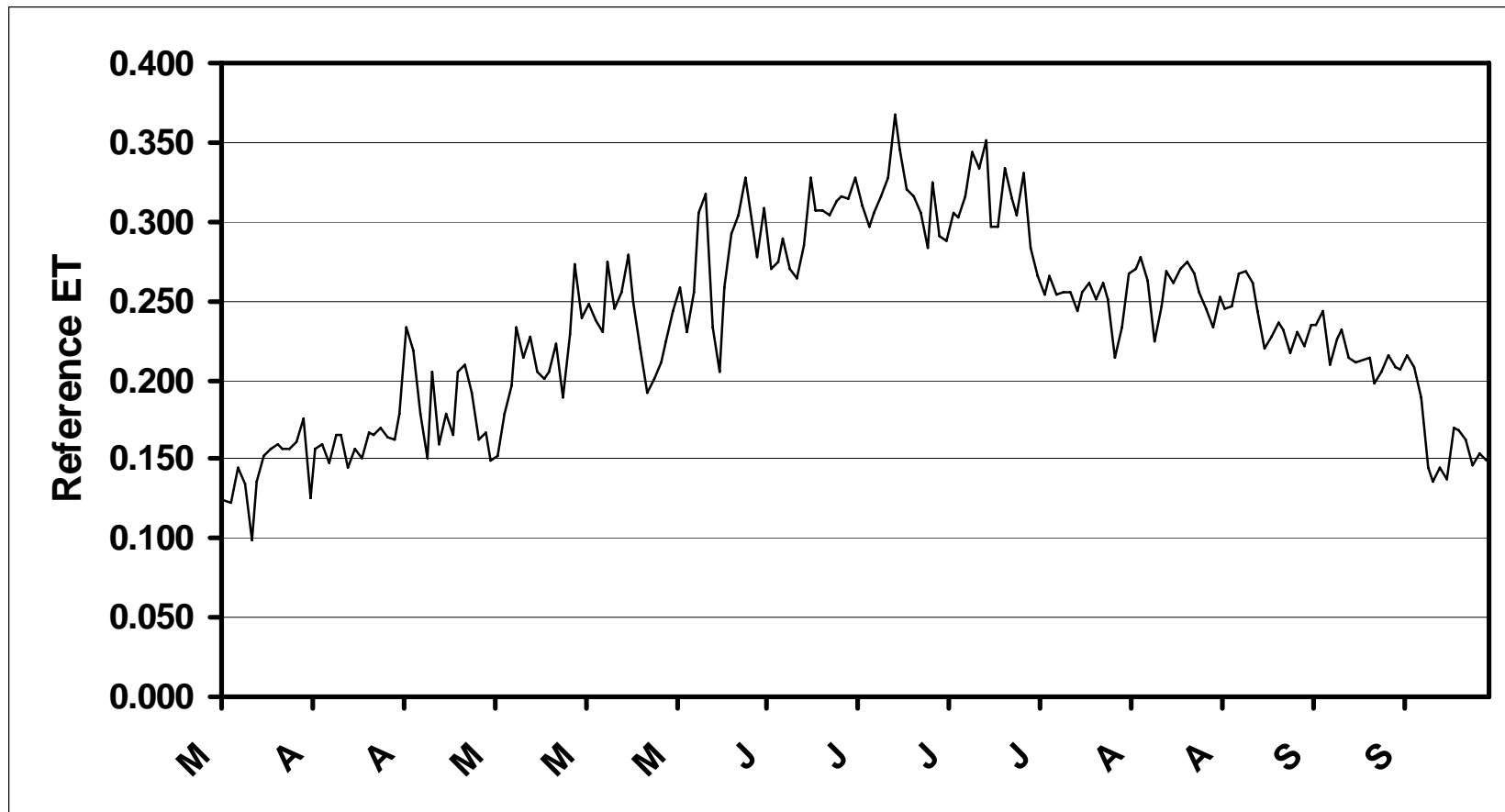


Average Daily Reference ET

Weld County (1995 – 2005)



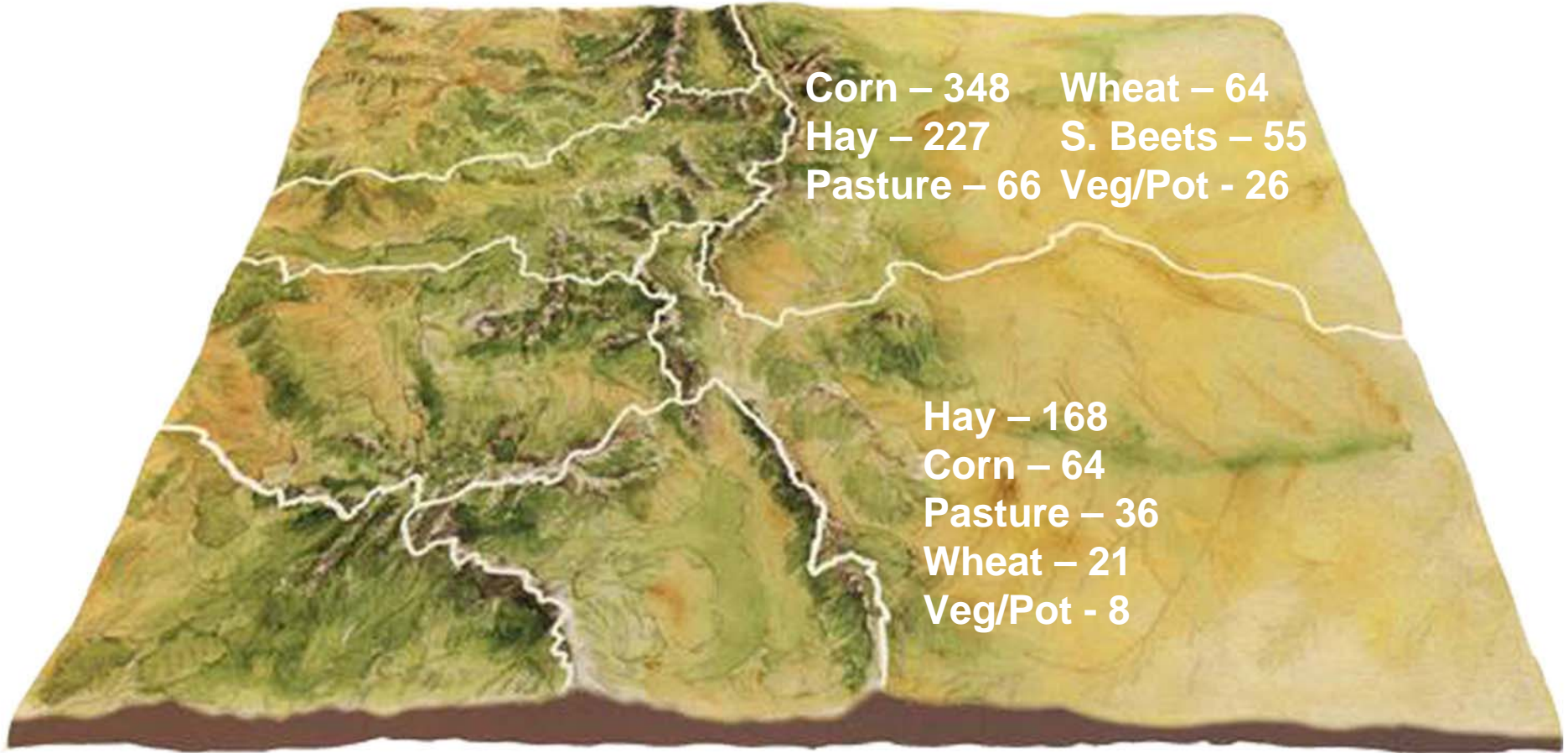
A large center pivot irrigation system is shown over a field of crops. The system consists of a long metal wheel with multiple arms extending from it, each with smaller wheels and pipes. The pipes are supported by a series of vertical posts. The field below is filled with green crops, likely corn. The sky is overcast with grey clouds. The text is overlaid on the top half of the image.

Conservation Strategies to Decrease Consumptive Use

- **Decrease irrigated acreage**
- **Decrease/alter irrigation season**

Irrigated Acreage – Major Crops

(thousands)



1997 Census of Agriculture, USDA

Net Irrigation Requirements

South Platte River Basin

<u>Crop</u>	<u>inches</u>
Alfalfa	26.4
Grass pasture	20.4
Corn	15.8
Winter Wheat	8.2

NRCS Irrigation guide, 1988

Alfalfa Yield vs Water Use

Weld County

- Calculated from weather records and alfalfa variety trial results

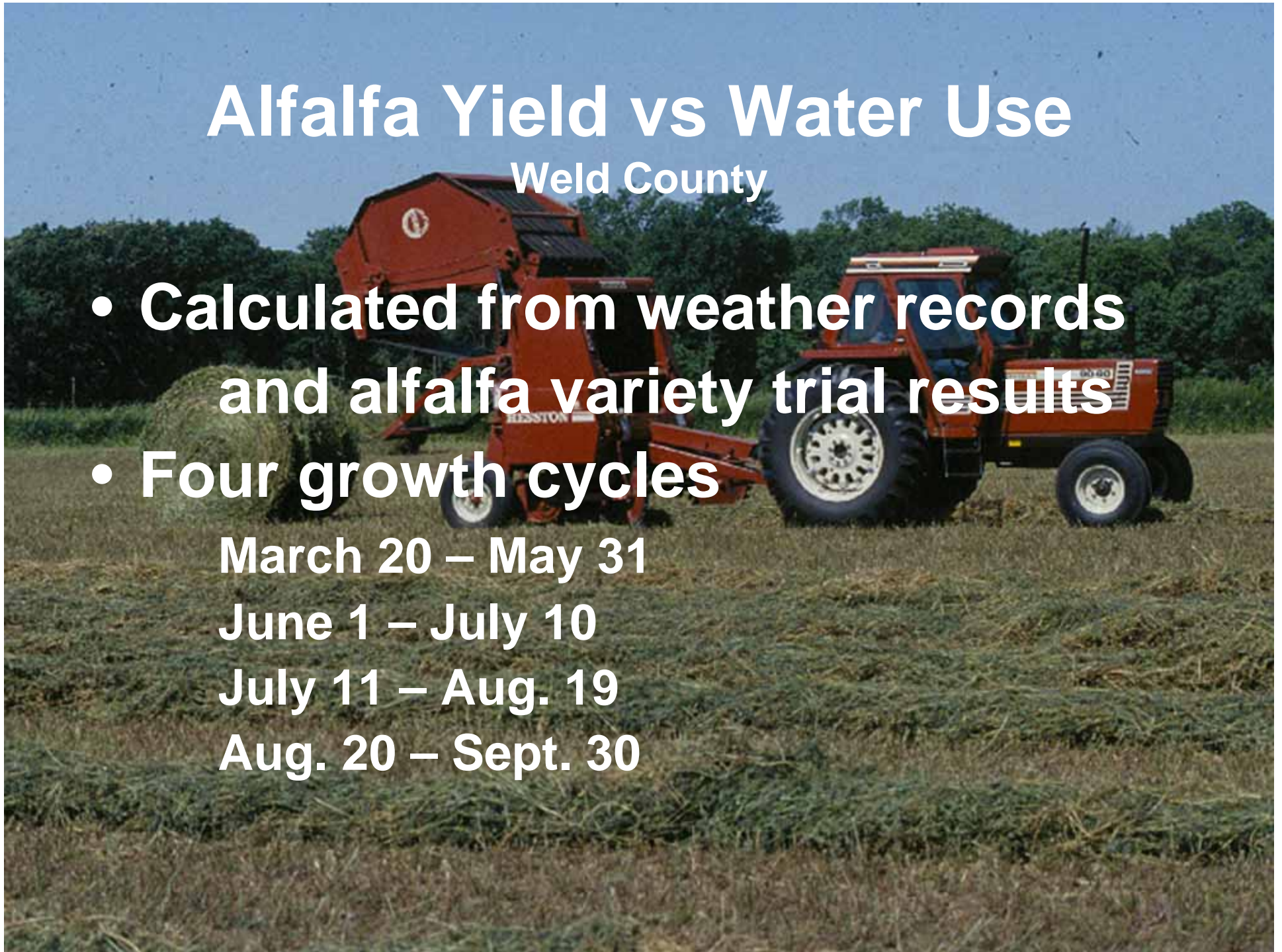
- Four growth cycles

March 20 – May 31

June 1 – July 10

July 11 – Aug. 19

Aug. 20 – Sept. 30



Irrigation Water Use Efficiency

Weld County

Harvest	Irr. Req. (in.)	Hay yield (tons/ac.)	Irr. WUE (in./ton)
1	7.9	2.4	3.3
2	7.9	1.8	4.4
3	7.0	1.6	4.4
4	5.8	1.3	4.5

Deficit Irrigation of Alfalfa Weld County

Monthly net irrigation requirement (in)

	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>July</u>	<u>Aug</u>	<u>Sep</u>	<u>Tot</u>
Full	0.4	2.4	5.1	5.3	5.6	4.9	4.9	28.6
Partial	0.4	2.4	5.1	-	-	-	-	7.9

Deficit Irrigation of Alfalfa Weld County

	<u>Net Irrig. requirement</u> (in)	<u>Yield</u> (tons/ac)	<u>Net CUE</u> (in/ton)
Full	28.6	7.1	4.0
Partial	7.9	2.4	3.3

Ag Water Transfers



Ag Water Transfers

(Revised Version)

