

Wright, James L. 1968.

Evaporation From Some Irrigated Crops as Related to Stage of Growth and Soil Water Status. Agronomy Abstracts p. 129.

Energy balance measurements were used to calculate the evapotranspiration from some irrigated crops in southern Idaho. A mobile instrumented laboratory equipped with automatic data acquisition equipment was used to make the measurements routinely during the growing season. These included solar and net radiation, air temperature, air humidity, air-temperature and air-humidity gradients above the crop, soil temperature and heat flux, windspeed, and wind direction. An electronic computer was used to process the data recorded on perforated paper tape. Leaf area index and soil water measurements were made routinely in conjunction with the other measurements. A dry soil surface during periods of partial plant cover decreased the rate of evapotranspiration by over 50%. The total energy used in evaporation of water increased as the season progressed, with the amount of advected energy increasing as the crops developed full cover.