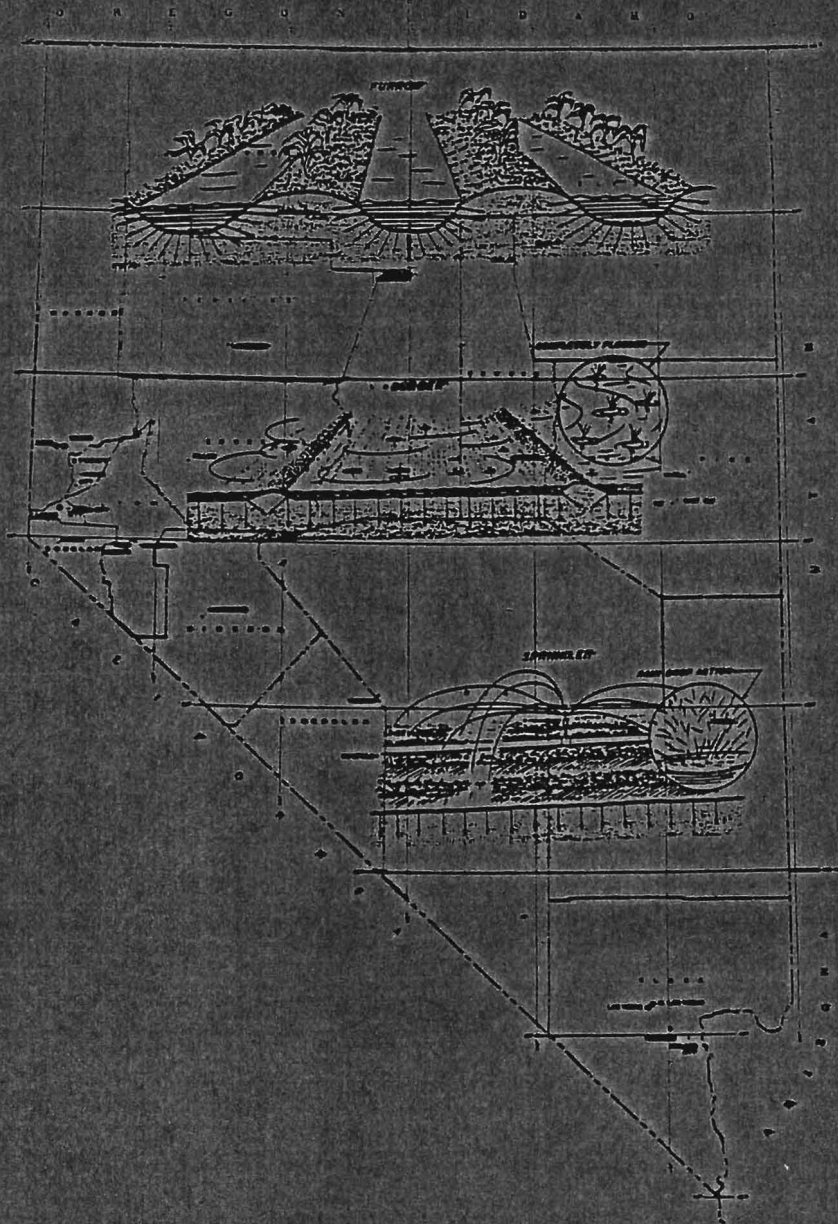


United States
Department of
Agriculture

SOIL
CONSERVATION
SERVICE

RENO,
NEVADA



NEVADA



IRRIGATION GUIDE

All programs and services of the U. S. Department of Agriculture are offered on a nondiscriminatory basis without regard to race, color, national origin, sex, age, marital status, or handicap.

(5) The Nevada Agricultural Experiment Station report shows that the FAO Blaney-Criddle method yields comparable consumptive use values to those obtained by the Radiation method. A computer program, developed by the Soil Conservation Service in California, computes crop consumptive use by both the TR-21 and FAO Blaney-Criddle methods. This program has been utilized to develop consumptive use values by both methods for the principal crops that can be grown in most of the agricultural areas in Nevada.

(6) The FAO Blaney-Criddle annual consumptive use values vary from 140% (below elevation 2000') to 180% (above elevation 6000') of the TR-21 Blaney-Criddle consumptive use values. The peak monthly consumptive use values vary from 125% to 175% respectively.

(7) The use of the Blaney-Criddle method (without adjustments as provided by the FAO Blaney-Criddle method) to determine consumptive use is not recommended for high altitude locations with cold night-time temperatures. This condition exists throughout Nevada except in the extreme southern part of the state below approximately 2500 ft. in elevation. One of the principal factors used by the Blaney-Criddle method is average temperatures. Since plant growth occurs principally during daylight hours, consumptive use would be underestimated in comparison to locations of similar elevation, latitude (sunshine hours) and daytime temperatures, but with warmer night-time temperatures.

(8) The potential consumptive use or evapotranspiration, as computed by all methods, is based on the assumption that water is not limited. In actual practice this would mean maintaining the soil moisture level near field capacity. Most crops can and do grow at lower moisture levels (40-60%) without seriously reducing yields. A practical actual consumptive use value probably lies between the values obtained by the TR-21 and FAO Blaney-Criddle methods.

Table NV 683.51 (14)

CONSUMPTIVE USE VALUES
 TR-21 and FAO Blaney-Criddle Methods
 ELEVATION 6255 BASE PERIOD 1941-1970

Average Consumptive Use (inches of water)

Crops	Growing Season	Average Dates	Days	Average Consumptive Use (inches of water)												Total
				Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
Alfalfa, Clover	125	5/15-9/17	TR-21	0.1	0.3	0.6	1.5	3.1	4.5	6.3	5.2	3.0	1.5	0.5	0.2	26.8
			FAO	0.1	0.4	1.2	3.0	5.2	9.2	10.8	9.0	6.0	2.3	0.7	0.1	48.0
Pasture	183	4/28-10/18	TR-21	0.1	0.2	0.6	1.3	2.5	3.7	5.3	4.6	2.7	1.3	0.4	0.1	22.8
			FAO	0.1	0.3	1.0	2.5	4.3	7.5	9.1	8.0	5.3	2.0	0.6	0.1	40.8
Orchards with EWER (Windbreaks)	166	5/15-10/18	TR-21	0.1	0.3	0.6	1.5	3.0	4.4	6.3	5.2	3.0	1.5	0.5	0.2	26.6
			FAO	0.1	0.4	1.2	3.0	5.2	9.2	10.8	9.1	6.0	2.3	0.7	0.1	48.1
Grain, Spring	130	4/28-9/5	TR-21	0.1	0.2	0.6	1.4	3.2	5.0	7.4	5.8	2.8	1.0	0.2	0.1	27.8
			FAO	0.1	0.3	1.0	2.8	5.4	10.4	12.7	10.0	5.6	1.5	0.2	0.1	50.1
Grain, Fall	130	-10/20 & 4/15-	TR-21	0.1	0.1	0.5	1.1	2.0	3.6	5.2	5.0	3.3	2.0	0.8	0.2	23.9
			FAO	0.1	0.1	0.8	2.0	3.4	5.9	9.2	9.0	6.9	3.2	1.1	0.1	41.8

Average Temperature (Degrees F.)	23.6	27.9	32.8	41.3	50.0	57.7	67.2	65.5	56.7	46.0	34.0	26.2	44.1
Average Precipitation (inches)	0.64	0.60	0.85	1.00	0.93	0.93	0.61	0.56	0.61	0.60	0.66	0.71	8.70
Effective Precipitation (Alfalfa) (ins)	0.1	0.3	0.5	0.7	0.7	0.7	0.5	0.4	0.4	0.4	0.4	0.2	5.3