

# GENERAL DISCUSSION

TABLE 18.—WATER USED PER ACRE IRRIGATED FROM SURFACE SOURCES, 1939 AND 1929; AND FROM UNDERGROUND SOURCES, 1939; BY PRIMARY AND SUPPLEMENTAL ENTERPRISES, AND BY STATES  
(For the 17 western States and Arkansas and Louisiana)

STATE	QUANTITY OF WATER ENTERING CANALS PER ACRE IRRIGATED			QUANTITY OF WATER DELIVERED TO IRRIGATORS PER ACRE IRRIGATED				
	1939		1929 <sup>1</sup>	1939		1929 <sup>1</sup>		
	Primary enterprises	Supplemental enterprises	Primary enterprises	Primary enterprises		Supplemental enterprises		Primary enterprises
	Surface sources	Surface sources	Surface sources	Surface sources	Underground sources	Surface sources	Underground sources	Surface sources
	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet
	TOTAL							
Average (19 States)-----	4.5	1.7	4.1	2.8	2.5	1.3	1.9	2.8
Arizona-----	7.6	-----	5.8	3.2	3.4	1.0	1.5	3.1
Arkansas-----	2.0	-----	(2)	2.6	2.8	0.7	2.8	(2)
California-----	4.3	1.4	4.0	2.6	2.7	1.5	1.9	2.8
Colorado-----	2.5	0.8	2.8	2.4	2.2	0.6	1.8	1.8
Idaho-----	7.9	2.6	5.9	4.1	2.9	1.2	1.8	4.1
Kansas-----	1.4	-----	(2)	1.3	1.6	0.2	2.0	(2)
Louisiana-----	3.4	-----	2.8	2.7	2.1	1.6	0.8	1.6
Montana-----	3.4	2.1	4.3	2.1	2.1	1.3	3.0	1.7
Nebraska-----	3.8	4.9	4.1	2.0	1.5	0.5	0.8	3.0
Nevada-----	5.1	3.5	4.0	3.0	4.6	3.5	1.8	3.1
New Mexico-----	6.4	-----	5.8	3.2	2.6	1.1	1.5	2.1
North Dakota-----	4.5	-----	6.1	1.8	0.4	-----	-----	1.6
Oklahoma-----	0.9	-----	(2)	1.2	2.0	-----	-----	(2)
Oregon-----	5.3	1.2	4.8	3.3	2.0	2.1	5.6	3.1
South Dakota-----	2.1	-----	3.8	1.1	0.4	-----	-----	1.3
Texas-----	5.2	4.8	3.3	2.7	1.4	1.4	1.4	1.7
Utah-----	2.9	1.2	3.5	2.5	3.5	1.1	2.0	2.4
Washington-----	5.7	2.0	5.4	4.3	4.2	3.8	2.7	3.6
Wyoming-----	4.4	1.1	3.2	2.1	1.9	0.8	0.2	2.5
	MEASURED <sup>1</sup>							
Average (19 States)-----	4.5	1.6	4.0	2.8	2.4	2.0	1.3	2.8
Arizona-----	7.9	-----	5.7	3.2	3.0	-----	-----	2.9
Arkansas-----	-----	-----	(2)	-----	-----	-----	-----	(2)
California-----	4.4	2.0	4.0	2.4	1.9	1.8	1.2	2.7
Colorado-----	2.4	0.7	2.4	1.6	1.3	0.7	-----	1.8
Idaho-----	7.4	2.6	5.5	5.1	3.2	6.1	2.2	4.1
Kansas-----	1.2	-----	(2)	1.3	-----	-----	-----	(2)
Louisiana-----	-----	-----	(2)	-----	-----	-----	-----	(2)
Montana-----	3.3	2.1	3.2	1.9	-----	1.3	-----	1.6
Nebraska-----	5.4	4.9	4.2	1.9	-----	0.5	-----	3.1
Nevada-----	5.2	5.4	4.0	4.2	-----	3.3	-----	3.1
New Mexico-----	6.2	-----	6.2	2.8	2.4	-----	-----	2.1
North Dakota-----	5.3	-----	6.1	-----	-----	-----	-----	1.6
Oklahoma-----	0.8	-----	(2)	-----	0.5	-----	-----	(2)
Oregon-----	5.3	1.3	5.2	4.2	0.4	0.7	-----	3.2
South Dakota-----	2.2	-----	3.6	1.0	-----	-----	-----	(2)
Texas-----	5.6	-----	4.8	2.9	1.8	0.9	-----	2.6
Utah-----	3.0	1.1	2.7	2.4	4.3	1.1	-----	2.4
Washington-----	5.6	0.7	5.3	4.1	4.6	1.5	-----	3.6
Wyoming-----	5.4	1.1	2.8	3.6	-----	0.9	-----	2.0
	NOT MEASURED							
Average (19 States)-----	4.4	2.0	4.4	2.7	2.6	0.9	1.9	2.6
Arizona-----	5.5	-----	7.8	3.4	4.0	1.0	1.6	5.3
Arkansas-----	2.0	-----	(2)	2.6	2.8	0.7	2.8	(2)
California-----	3.7	1.0	3.6	2.9	2.8	1.1	1.9	3.2
Colorado-----	2.9	0.9	3.8	4.2	2.2	0.6	1.8	2.1
Idaho-----	12.0	2.4	7.2	2.3	2.6	0.2	1.7	4.9
Kansas-----	1.8	-----	(2)	1.2	1.6	0.2	2.0	(2)
Louisiana-----	3.4	-----	2.8	2.7	2.1	1.6	0.8	1.6
Montana-----	3.5	1.8	5.2	2.2	2.1	1.1	3.0	1.8
Nebraska-----	8.0	-----	1.8	2.1	1.5	0.5	0.8	1.8
Nevada-----	4.9	3.1	4.6	2.6	4.6	4.3	1.8	3.2
New Mexico-----	6.5	-----	5.3	3.4	2.6	1.1	1.5	1.4
North Dakota-----	1.9	-----	(2)	1.8	0.4	-----	-----	(2)
Oklahoma-----	-----	-----	(2)	1.2	2.1	-----	-----	(2)
Oregon-----	5.3	0.9	4.1	2.9	2.1	2.2	5.6	2.3
South Dakota-----	1.5	-----	5.9	1.6	0.4	-----	-----	1.3
Texas-----	4.7	4.8	2.5	2.7	1.4	2.1	1.1	1.5
Utah-----	2.6	1.4	4.5	2.6	3.4	1.1	2.0	2.6
Washington-----	5.9	6.7	5.9	4.5	4.1	4.0	2.7	3.5
Wyoming-----	3.4	1.0	3.5	1.7	1.9	0.8	0.2	3.4

<sup>1</sup> Data only for enterprises serving 5 or more units. Water and area for surface and underground sources and water and area for primary and supplemental enterprises were not segregated in 1929.  
<sup>2</sup> Not reported.

### Areas by Types of Water Rights

Table 19 (p. XLV) presents a proportional table by States based on the areas irrigated by enterprises reporting different types of water rights. The indicated decrease in the proportion of acreages reporting water rights adjudicated by court in 1939 is probably due largely to the fact that a direct question calling for a report on adjudicated rights was not placed on the questionnaire presented to the enterprises. Therefore, in many instances, appropriated, underground, or other rights,

were not specified by the enterprise reporting as rights having been also adjudicated by court decree.

The considerable increase in water rights reported as underground, in the States of Arizona, Kansas, Nebraska, and Texas, harmonizes substantially with the increases of areas irrigated from wells in these States as set forth in table 9. Lands irrigated from wells show a decade increase in Arizona of 40,494 acres; Kansas, 33,407 acres; Nebraska, 57,582 acres; and Texas, 204,240 acres. A further discussion of water rights and laws pertaining to water rights by States is presented on page XL.