

Table 1. Resources (water and nutrients) required to produce a 300 bu/acre crop of corn grain.

Resource	Content (15.5% moisture)	Removal (300 bu/acre)
	lbs/bu	lbs
Water from soil ^a (evap. + transp.)	18,800	5.6 million
Water transpired through the plant ^b	11,100	3.3 million
Oxygen (O) ^c	21.4	6,430
Carbon (C) ^c	21.0	6,290
Hydrogen (H) ^c	2.85	857
Nitrogen (N) ^d	0.615	185
Phosphorus (P ₂ O ₅) ^d	0.428	128
Potassium (K ₂ O) ^d	0.273	81.9
Magnesium (Mg) ^d	0.0733	22.0
Sulfur (S) ^d	0.0506	15.2
Calcium (Ca) ^d	0.0132	3.96
Iron (Fe) ^d	0.00168	0.504
Zinc (Zn) ^d	0.00126	0.378
Boron (B) ^d	0.00028	0.084
Manganese (Mn) ^d	0.00023	0.069
Copper (Cu) ^d	0.00015	0.045
Molybdenum (Mo) ^e	Trace	Trace
Chlorine (Cl) ^e	Trace	Trace

^aStrachan and Jeschke, 2017; ^bLight and Archonoulis, 2017; ^cLatshaw and Miller, 1924; ^dHeckman et al., 2003; ^eSalisbury and Ross, 1978.