APPENDIX G

GLOSSARY OF TERMS
CONVERSION FACTORS

GLOSSARY OF TERMS

acre-foot--A liquid measure of a volume equal to covering a 1 acre area to 1 foot of depth.

aerosol--A suspension of colloidal solid or liquid particles in air or gas, having small diameters ranging from 0.01 to 50 microns.

aquiclude--A geologic formation which, although porous and capable of absorbing water slowly, will not transmit it rapidly enough to furnish an appreciable supply for a well or spring.

available moisture--The part of the water in the soil that can be taken up by plants at rates significant to their growth; the moisture content of the soil in excess of the ultimate wilting point.

coppice--sprouting from tree stumps.

cultivar--A cultural variety of a plant species.

evapotranspiration--The combined loss of water from a given area and during a specified period of time, by evaporation from the soil surface, snow, or intercepted precipitation, and by the transpiration and building of tissue by plants.

field area--The “wetted area” where treatment occurs in a land application system.

field capacity--(field moisture capacity)--The moisture content of soil in the field 2 or 3 days after having been saturated and after free drainage has practically ceased; the quantity of water held in a soil by capillary action after the gravitational or free water has been allowed to drain; expressed as moisture percentage, dry weight basis.

fragipan--A loamy, dense, brittle subsurface horizon that is very low in organic matter and clay but is rich in silt or very fine sand. The layer is seemingly cemented and slowly or very slowly permeable.

horizon (soil)--A layer of soil, approximately parallel to the soil surface, with distinct characteristics produced by soil-forming processes.

infiltrometer--A device by which the rate and amount of water infiltration into the soil is determined (cylinder, sprinkler, or basin flooding).

matric potential--Attractive forces of soil particles for water and water molecules for each other.

micronutrient--A chemical element necessary in only small trace amounts (less than 1 mg/L) for microorganisms and plant growth. Essential micronutrients are boron, chloride, copper, iron, manganese, molybdenum, and zinc.

mineralization--The conversion of a compound from an organic form to an inorganic form as a result of microbial decomposition.

sodic soil--A soil that contains sufficient sodium to interfere with the growth of most crop plants, and in which the exchangeable sodium percentage is 15 or more.

soil water--That water present in the soil pores in an unsaturated (aeration) zone above the ground water table. Such water may either be lost by evapotranspiration or percolation to the ground water table.

tensiometer--A device used to measure the negative pressure (or tension) with which water is held in the soil; a porous, permeable ceramic cup connected through a tube to a manometer or vacuum gage.

till--Deposits of glacial drift laid down in place as the glacier melts, consisting of a heterogeneous mass of rock flour, clay, sand, pebbles, cobbles, and boulders intermingled in any proportion; the agricultural cultivation of fields.

tilth--The physical condition of a soil as related to its ease of cultivation. Good tilth is associated with high noncapillary porosity and stable, granular structure, and low impedance to seedling emergence and root penetration.

transpiration--The net quantity of water absorbed through plant roots that is used directly in building plant tissue, or given off to the atmosphere as a vapor from the leaves and stems of living plants.

volatilization--The evaporation or changing of a substance from liquid to vapor.

wilting point--The minimum quantity of water in a given soil necessary to maintain plant growth. When the quantity of moisture falls below this, the leaves begin to drop and shrivel up.

CONVERSION FACTORS
Metric to U.S. Customary

Metric			U.S. customary unit	
Name	Symbol	Multiplier	Abbreviation	Name
centimeter(s)	cm	0.3937	in.	inches
centimeter(s) per hour	cm/h	0.3937	in./h	inches per hour
cubic meter	m^3	8.1071×10^{-4} 35.3147 264.25	acre-ft ft^3 Mgal	acre-foot cubic foot million gallons
cubic meters per day	m^3/d	2.6417×10^{-4}	Mgal/d	million gallons per day
cubic meters per hectare	m^3/ha	1.069×10^{-4}	Mgal/acre	million gallons per acre
cubic meters per second	m^3/s	22.82	Mgal/d	million gallons per day
degrees Celsius	°C	1.8(°C) + 32	°F	degrees Fahrenheit
gram(s)	g	0.0022	lb	pound(s)
hectare	ha	2.4711 0.004	acre mi^2	acre square miles
Joule	J	9.48×10^{-4}	Btu	British thermal unit
kilogram(s)	kg	2.205	lb	pound(s)
kilograms per hectare	kg/ha	0.0004	tons/acre	tons per acre
kilograms per hectare per day	kg/ha·d	0.893	lb/acre·d	pounds per acre per day
kilograms per square centimeter	kg/cm^2	14.49	$lb/in.^2$	pounds per square inch
kilometer	km	0.6214	mi	mile
kilowatt	kW	1.34	hp	horsepower
liter	L	0.0353 0.264	ft^3 gal	cubic foot gallon(s)
liters per hectare per day	L/ha·d	0.11	gal/acre·d	gallons per acre per day
liters per second	L/s	0.035 22.826 15.85 0.023	ft^3/s gal/d gal/min Mgal/d	cubic feet per second gallons per day gallons per minute million gallons per day
megagram (metric tonne)	Mg(or t)	1.10	ton(short)	ton(short)
megagrams per hectare	mg/ha	0.446	tons/acre	tons per acre
megajoule	MJ	0.278	kWh	kilowatt hour
megaliters (liters x 10^6)	ML	0.264	Mgal	million gallons
meters(s)	m	3.2808	ft	foot (feet)
meters per second	m/s	2.237	mi/h	miles per hour
micrograms per liter	µg/L	1.0	ppb	parts per billion
milligrams per liter	mg/L	1.0	ppm	parts per million
nanograms per liter	ng/L	1.0	ppt	parts per trillion
Newtons per square centimeter	N/cm^2	1.45	$lb/in.^2$	pounds per square inch
square centimeter	cm^2	0.155	$in.^2$	square inch
square kilometer	km^2	0.386	mi^2	square mile
square meter	m^2	10.76	ft^2	square foot