



A
MATRIX
SCIENCES
COMPANY

A & L WESTERN AGRICULTURAL LABORATORY

MODESTO OFFICE: 1311 WOODLAND AVENUE, STE 1 MODESTO, CA 95351 209-529-4080
PORTLAND OFFICE: 21830 SW ALEXANDER LANE SHERWOOD, OR 97140 503-968-9225

2024 CODES

SOIL ANALYSIS

S-101	pH, PO ₄ -P (Bray & Olsen), CEC, Exchangeable Ca, Mg, Na, K, OM (LOI), NO ₃ -N
S-103	pH, PO ₄ -P (Bray & Olsen), CEC, Exchangeable Ca, Mg, Na, K, OM (LOI), NO ₃ -N, SO ₄ -S, EC, Lime Presence, Zn, Mn, Fe, Cu and Boron
S-110	Salinity Saturated Paste SP%, pH, EC, Ca, Mg, Na, K, Cl, SO ₄ -S, HCO ₃ , SAR, LP, B, NO ₃ -N, PO ₄ -P (Bray & Olsen), Zn, Mn, Fe, Cu, CEC, Exchangeable Ca, Mg, Na, K, OM (LOI)
S-7	Container Media Extract (DTPA Modification), pH, EC, NO ₃ -N, NH ₄ -N, P, K, Ca, Mg, Na, SO ₄ -S, Zn, Mn, Fe, Cu, B
S-1	SP%, pH, EC, Ca, Mg, Na, K, Cl, SAR, LP, B, NO ₃ -N, PO ₄ -P, K-AA, Zn, Mn, Fe, Cu, SO ₄ -S and CEC, Exchangeable Ca, Mg, Na, K
S-2	S-1 plus OM, Organic Carbon, Total N, C:N ratio, CaCO ₃ (Healthy Soils Program)
S-3	SP%, pH, EC, Ca, Mg, Na, K, SAR, LP, B, SO ₄ -S
S-4	SP%, pH, EC, Ca, Mg, Na, K, SAR, LP, B, NO ₃ -N, PO ₄ -P, K-AA, Zn, Mn, Fe, Cu, SO ₄ -S
S-8	Soil Moisture
S-9	% CaCO ₃ \$12.00 with other package
S-11	Particle Size Analysis - (PSA) - Sand, Silt, Clay, Soil Texture, Available Moisture
S-13	S-2 plus Co, Mo, Ni, Ba and Al
S-15	S-13 plus Saturated Paste Soil Solution Evaluation (SPE) Water soluble pH, HCO ₃ , NO ₃ -N, PO ₄ -P, Zn, Mn, Fe, Cu, Co, Si
S-20	Organic Matter, Total Nitrogen, %CaCO ₃ , Organic Carbon, Carbon:Nitrogen Ratio
S-C	Collection, Consultation, Handling fee (Collection not available in Oregon)

PLANT TISSUE

P-1	N, P, K, Ca, Mg, Zn, Mn, Fe, Cu, B
P-2	N, P, K, Ca, Mg, Zn, Mn, Fe, Cu, B, Na, S, Al, Mo
P-3	N, P, K, S, Zn
P-4	N, P, K, Ca, Mg, Zn, Mn, Fe, Cu, B, Na, S, Al, Mo, Cl
P-5	N, P, K, S, Zn, Cl
P-7	Boron on Almond hulls includes special handling for drying and grinding
P-8	N, P, K, Ca, Mg, Zn, Mn, Fe, Cu, B, Na, S, C, Cl, Al, Co, Mo, Ba, Ni, (EC, pH 1:2)
P-9	Nitrogen
P-C	Collection, Consultation, Handling fee



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Water

W-1	Ag Suitability- pH,EC,Ca,Mg,Na,K,B,HCO ₃ ,CO ₃ ,NO ₃ -N,Cl,SO ₄ -S,SAR, SAR/EC Ratio
W-2	W-1, plus Titration Curve, H ₂ SO ₄ pH adjustment
W-3	W-1, plus dissolved Mn,Fe, Cu
W-4	W-1, plus Titration Curve, H ₂ SO ₄ pH adjustment, dissolved Zn,Mn,Fe & Cu
W-5	Nitrate

MANURE

M-1	TN,P,K, %Moisture
M-2	TN,P,K, %Moisture,Ca,Mg,Na,Cl,S,Ash
M-3	TN,P,K, %Moisture,Ash,C,C:N
M-4	TN,P,K, % Moisture,Ash,Ca,Mg,Na,Cl,S,B,pH,EC,OM,C,C:N
M-5	%Moisture, C, TN, C:N Ratio
M-6	%Moisture
M-7	TN,P,K, %Moisture,Ca,Mg,Na,Cl,S,Ash,B,Zn,Mn,Fe,Cu,Al
M-32	pH,Organic N,NH ₄ ,NO ₃ -N,TN,P,K,Moisture,Ca,Mg,Na,Cl,S,B,Zn,Mn,Fe,Cu,Al,1st year Avail Calc
M-31	M-32 PLUS C:N,Soluble Salts,OM,C,Ash,Bulk Density

HARVEST CROP

H-1	Harvested Crop (N,P,K,%Moisture,Ash)
H-2	%Moisture, TN
H-3	%Moisture

LAGOON WATER

L-1	EC,TDS,NH ₄ N,TKN,P,K
L-2	EC,TDS,NH ₄ N,TKN,P,K,Ca,Mg,Na,HCO ₃ ,Cl,SO ₄ -S
L-3	EC,TDS,NH ₄ N,TKN,P,K,NO ₃ N, pH
L-4	EC,TDS,NH ₄ N,TKN,P,K,Ca,Mg,Na,HCO ₃ ,Cl,SO ₄ -S,NO ₃ -N
L-5	EC,TDS,NH ₄ N,TKN,P,K,NO ₃ -N
L-7	pH
L-8	pH,EC,Organic N,NH ₄ -N,NO ₃ -N,Total N,P,K,SO ₄ -S,Ca,Na,B,Cu,Mn,Zn,Mg,Cl,Al,C:N,Soluble Salts,C, 1st year Avail Calc

PLANT SAP

SAP1	NO ₃ -N,P,K,Ca,Mg,Zn,SO ₄ ⁻ -S,B,Cu,Fe,Mn,Na,Mo,Al - 2 samples Old vs New tissue paired for comparison
SAP2	SAP1 plus NH ₄ -N,Cl,pH,EC,Brix - 2 samples Old vs New tissue paired for comparison