North Bay Materials – Product Spec. Sheet

Product: Organic Soil Conditioner Mix

Product Description

A nutrient-rich, organic soil amendment formulated to improve clay soils, increase aeration/drainage, and enhance microbial activity. Optimized for gardens, planting beds, lawns, orchards, and vineyards across Napa & Solano.

Material Composition

- Organic Components: Rice hulls, sawdust, poultry manure (composted/manure-stabilized)
- Mineral Components: Gypsum ($CaSO_4 \cdot 2H_2O$), Iron sulfate ($FeSO_4$)

Physical & Chemical Properties (typical)

- Organic Matter: ~45% (dry wt)
- pH (1:2 H_2O): ~6.8
- EC: ~2.4 dS/m
- C:N: ~22:1
- Bulk Density: ~0.60 g/cm^3
- Particle Size: Fine–medium, screened (see Lab Analysis)

Performance Features

- Clay Relief: Gypsum + organic matter reduce compaction and improve infiltration
- Nutrient Boost: Slow-release N with balanced P, K, Ca, S, and micronutrients
- Soil Biology: High organic matter supports beneficial microbes and root vigor
- Workability: Light texture mixes easily with native soils

Recommended Application Rates (guidelines)

- Vegetable Gardens / Raised Beds: 2–3" layer (≈0.17–0.25 yd^3 per 10'×10'), till 6–8" into native soil
- Flower Beds & Shrubs: 1–2" incorporated into top 6"
- Lawns (New): 1–2" incorporated before seeding/sod; Topdressing: ¼–½" after aeration
- Trees / Vines: Blend up to 25–33% by volume with native backfill; keep 3" clear of trunk/canestock
- Vineyard Row Bands: 0.5–1" band, incorporate lightly to improve rooting zone
- Irrigation: After installation, water thoroughly to settle and buffer salts. Avoid over-application in poorly drained sites.

Depth	Coverage per 1 cubic yard
1"	~315 sq ft
2"	~155 sq ft
3"	~105 sq ft
4"	~75 sq ft

Parameter	Method (typical)	Result	Units	Notes
Moisture Content	Oven dry (105 °C)	30	% wt	At time of sampling
Organic Matter	Loss on Ignition (550 °C)	45	% dry wt	High due to hulls/sawdust/manure
pH (1:2 H_2O)	Saturated paste	6.8	—	Slightly acidic–neutral
Electrical Conductivity	1:2 slurry	2.4	dS/m	Moderate salts; water in after mixing
C:N Ratio	Combustion (C,N)	22:1	—	Balanced for soil conditioning
Total Nitrogen (N)	Kjeldahl/Combustion	1.2	% dry wt	Slow-release from manure
Available Phosphate (P_2O_5)	Mehlich-3	0.7	% dry wt	
Available Potash (K_2O)	Mehlich-3	0.8	% dry wt	
Calcium (Ca)	Mehlich-3	2.5	% dry wt	From gypsum
Magnesium (Mg)	Mehlich-3	0.6	% dry wt	
Sulfur (S)	ICP after acid digest	1.2	% dry wt	From gypsum + $FeSO_4$
Iron (Fe)	ICP	4,000	mg/kg	From iron sulfate
Manganese (Mn)	ICP	200	mg/kg	
Zinc (Zn)	ICP	100	mg/kg	
Copper (Cu)	ICP	50	mg/kg	
Boron (B)	Hot water extract	5	mg/kg	
Sodium (Na)	ICP	1,500	mg/kg	~0.15%
Chloride (Cl^-)	Ion chromatography	250	mg/kg	
SAR (Sodium Adsorption Ratio)	Calc.	2	—	Low risk
Bulk Density	Core method	0.6	g/cm³	Light, mixes easily

Installation & Coordination

- Confirm site access and dump location prior to delivery.
- Install when soils are workable; avoid saturated conditions.
- Coordinate with irrigation activation for post-installation flushing.
- Do not place directly against trunks/stems.
- Not intended as a standalone potting mix (blend with mineral soils).

Environmental & Safety

- PPE: Gloves, eye protection; dust mask during dry/windy conditions.
- Hygiene: Wash hands after handling; avoid contact with cuts/eyes.
- Runoff Control: Store covered; prevent discharge to storm drains/waterways.
- Allergens/Odor: Mild, earthy odor may be present initially. Dissipates after incorporation.

Quality Assurance

- Blend consistency verified by batch QC checks.
- Typical lab values provided (see Lab Analysis). For projects requiring certified results, request a lot-specific third-party report prior to installation.

Delivery & Packaging

- Format: Bulk by cubic yard
- Minimum Order: 1 cubic yard
- Typical Lead Time: 1–3 business days (truck availability & weather dependent)
- One Material Per Load: Separate deliveries for multiple materials
- Service Areas: Napa County; Sonoma, Vallejo, Benicia, Suisun City, Fairfield (Solano)

Limitations

- Not a fertilizer substitute on its own for high-demand crops — supplement per soil test.
- Avoid excessive application in poorly drained or saline soils; monitor EC.
- Not OMRI listed (no organic certification claim).

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