

Product: Douglas fir bark (S3-20)

Source: Oregon

Date received: 2/17/2026

Moisture content upon receipt: 52.4%

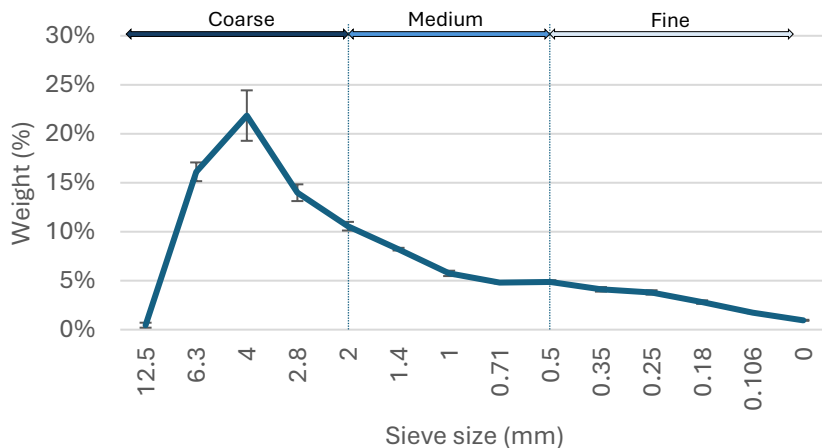
Plant species: *Pseudotsuga menziesii*

Processing equipment:

Described as “a blend of 70% coarse + 30% fine” bark



Particle size distribution

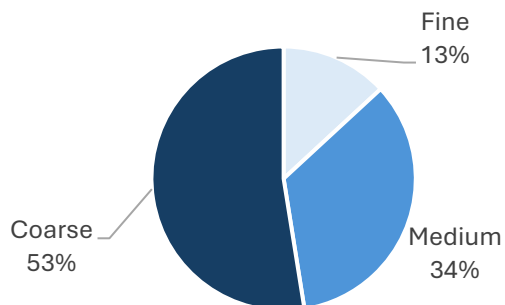


Particle size distribution:

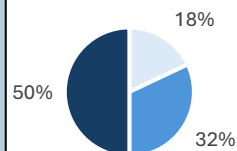
Particle size skews towards coarse particles, not surprising as this product is intentionally blended as ‘70% coarse and 30% fine’ Douglas fir bark. This material is specifically used to promote drainage in large outdoor containers.

When analyzed by particle size class, it has a distribution similar to pine bark used on the east coast (below).

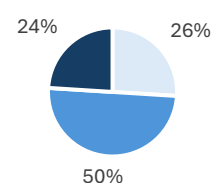
Particle size classification



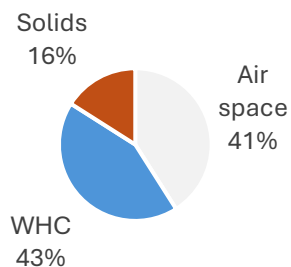
Pine bark



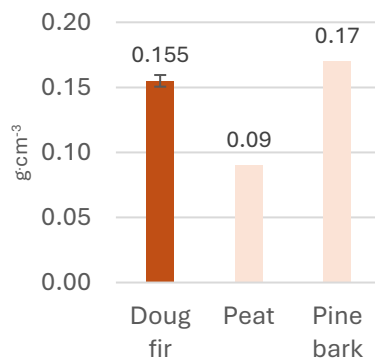
Peat



Physical properties



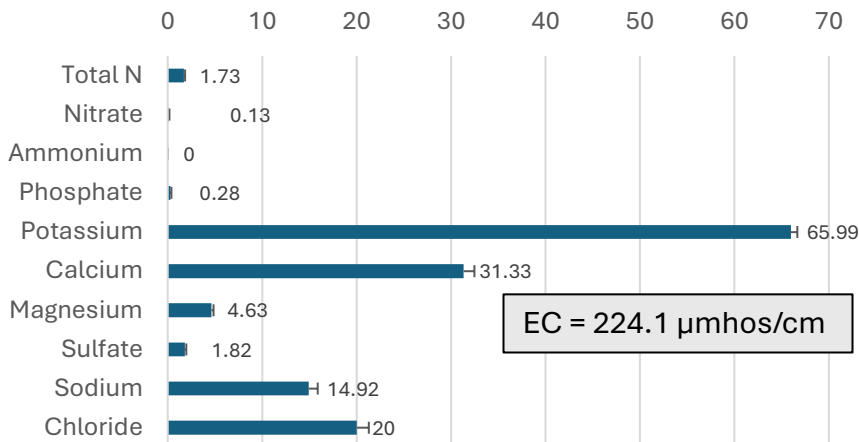
Bulk density



Physical properties:

Total porosity is 84%. Of that, this substrate has moderately high air space. This substrate would be ideal in crops where drainage is emphasized. Bulk density is similar to other softwood barks.

Water extractable nutrients (mg·L⁻¹)



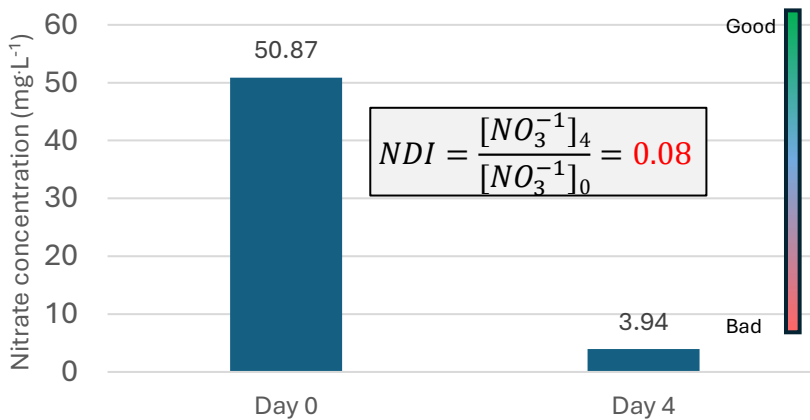
Water extractable nutrients:

Water extractable N and P are low, typical of other softwood barks. Extractable K is high, but not excessive.

Ca and Mg are within an acceptable range with a reasonable Ca:Mg ratio.

Na and Cl are sufficiently low.

Nitrogen draw-down

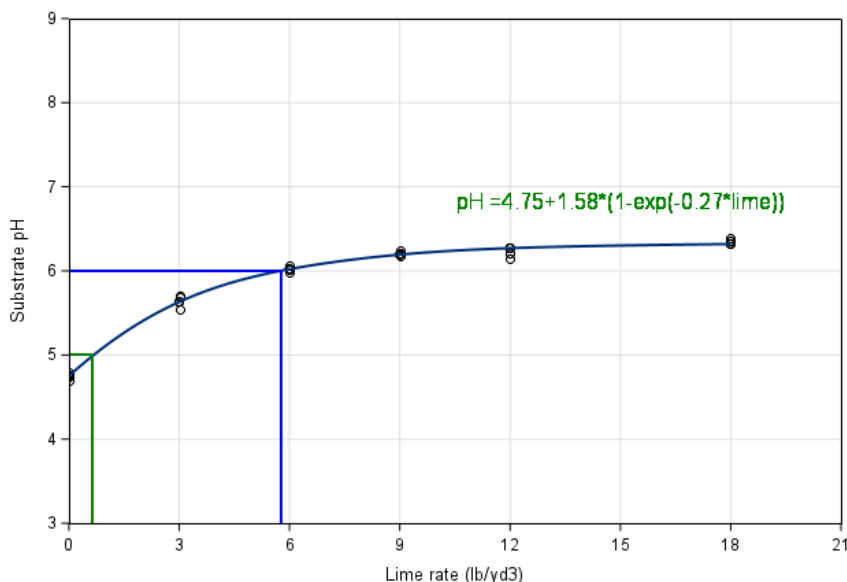


Nitrogen draw down index:

Nitrogen draw-down index (NDI) is 0.08, indicating a high rate of N immobilization. This substrate will require additional N for optimum plant growth.

This value is based on 53.7 g dry mass and 0.155 g·cm⁻³ bulk density.

Substrate pH response to lime rate



Lime rate titration:

Lime calibration curve shows non-amended Douglas fir bark with a pH of 4.75. The bark can be raised to a pH of 5 or 6 with approximately 1 or 6 lb/yd³ dolomitic lime, respectively.