

Product: Buckwheat hulls (S3-26)

Source: New Hampshire

Date received: 3/9/2026

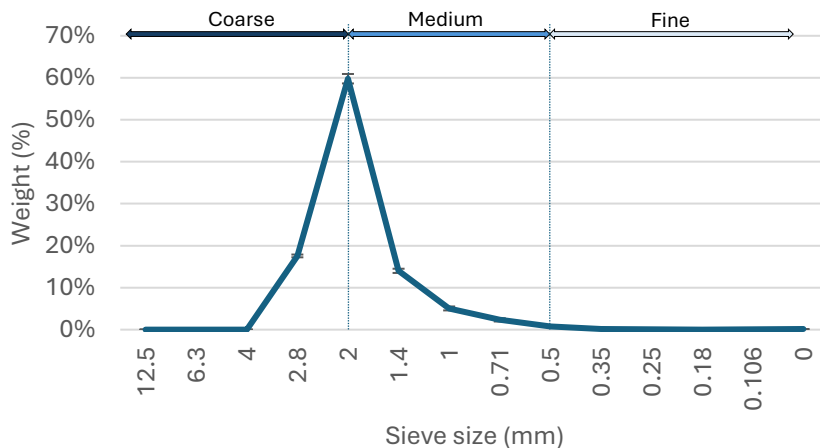
Moisture content upon receipt: 11.5%

Plant species: *Fagopyrum esculentum*

Processing equipment:



Particle size distribution

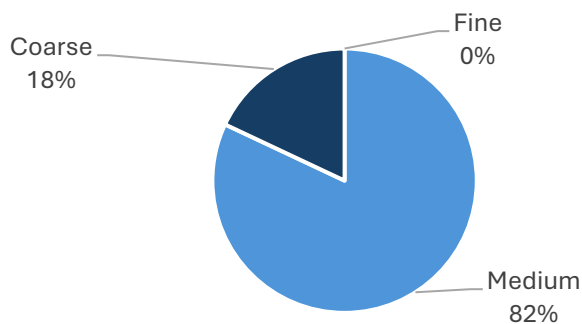


Particle size distribution:

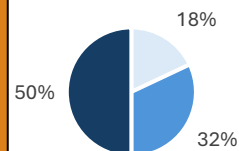
This material is composed almost entirely of medium particles. Depending on their source, buckwheat husks can be cleaned to remove dust.

When analyzed by particle size class, it is completely free of fine particles. The particle size of this material could be ideal as a perlite replacement.

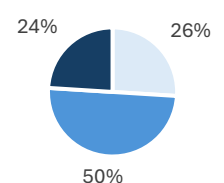
Particle size classification



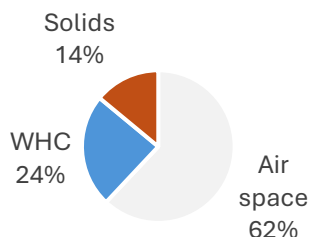
Pine bark



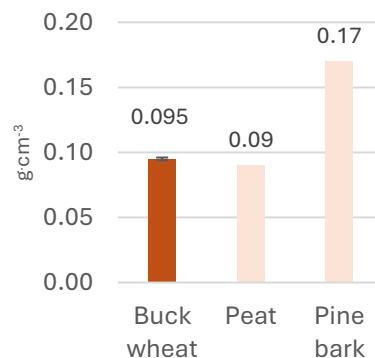
Peat



Physical properties



Bulk density

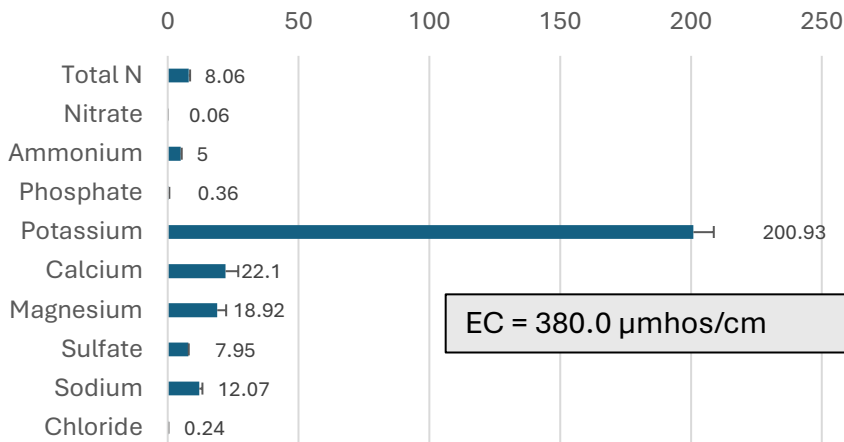


Physical properties:

Total porosity is 86%. Of that, this substrate has very high air space. This substrate would be most ideal as an amendment in crops where drainage is needed.

Bulk density is similar to peat.

Water extractable nutrients (mg·L⁻¹)



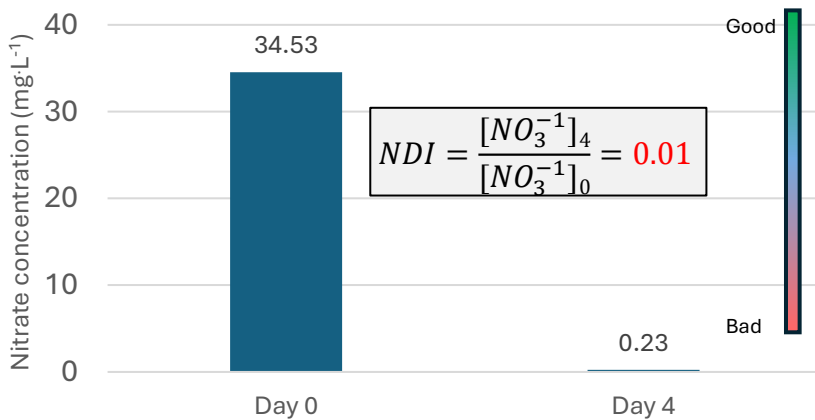
Water extractable nutrients:

Extractable nutrients are low, except for K. Many nut shells and grain husks are known and valued for high K concentrations.

Ca and Mg are within an acceptable range.

Na and Cl are sufficiently low.

Nitrogen draw-down

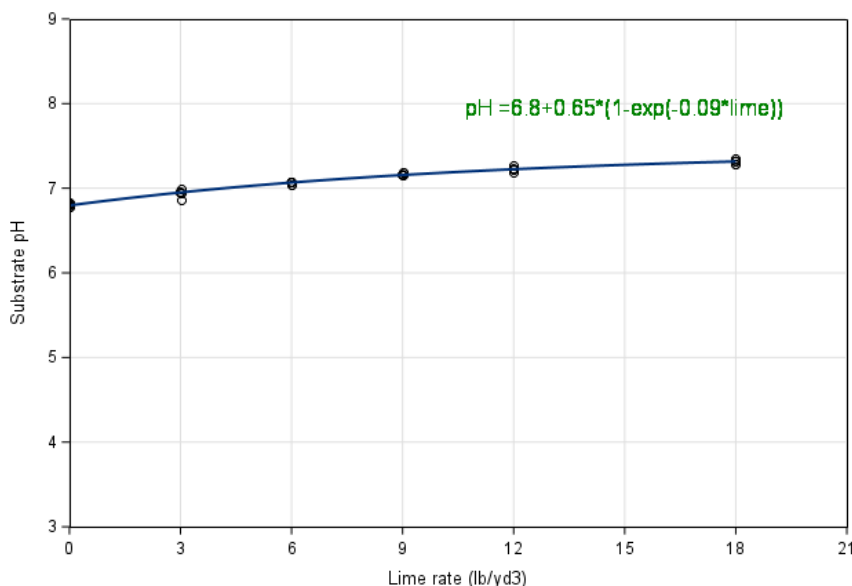


Nitrogen draw down index:

Nitrogen draw-down index (NDI) is 0.01, indicating a high rate of N immobilization. The coarse nature of this product may negate this effect.

This value is based on 32.9 g dry mass and 0.095 g·cm⁻³ bulk density.

Substrate pH response to lime rate



Lime rate titration:

Lime calibration curve shows non-amended shells with a pH of 6.8. The pH can be raised slightly with addition of dolomitic lime. This particular lime calibration curve may have little practical consequence considering the coarseness of the sample. Conversely, using these husks as an amendment should have little impact on overall substrate pH.