

# PHOSPHORUS FERTILIZER RATE AND EXTRACTABLE PHOSPHORUS ON A RECLAIMED AND UNDISTURBED PASTURE SOIL<sup>1</sup>

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**Abstract.** Reclaimed surface mine soils are sufficiently different from the native, undisturbed soils that they may require a different fertilizer management strategy to maintain forage productivity. Two top soils were collected from North Central West Virginia, one from a reclaimed surface mine and one from an adjacent, undisturbed pasture. Soils were air-dried and lightly crushed to pass a 2mm sieve. Inorganic phosphorus as  $\text{KH}_2\text{PO}_4$  was added at five different rates to both soils (three replications) and then subjected to repeated wetting and drying cycles at 32-34°C in a dark growth chamber. Mehlich 3 and  $\text{CaCl}_2$  extractable phosphorus was determined after the last drying. Extractable phosphorus was lower in the reclaimed mine soil, suggesting that additional fertilizer phosphorus would be needed for adequate forage production.

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