

EVALUATION OF BRASSICA, SPP. MIN-TILL
SEEDED IN HILL-LAND PASTURES

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ABSTRACT

Forage turnips and rape stands were established in hill land pastures using no-till techniques. Trials in Pennsylvania were highly successful over a wide range of conditions, except on poorly drained soils. Productive stands were obtained from seedings made at anytime from mid-May to mid-August. Stand establishment required control of sod growth, but it was not necessary to kill the sod. Insufficient availability of soil nutrients markedly reduced seedling vigor, time required for establishment, and crop yield. Dry matter yield of turnips and rape generally ranged from 6,000 to 9,000 kg per hectare, 90 days after seeding. Turnip yields were generally highest approximately 90 days after seeding, whereas rape yields were generally highest 120 days after seeding. Turnips accumulated the digestible energy equivalent of $7.2 \text{ Mg}\cdot\text{ha}^{-1}$ (115 bu) corn, between early August and early November. Dry matter digestibility, as estimated by laboratory techniques, ranged from 85 to 95 percent. Crude protein ranged from 15 to 25 percent for topgrowth and about 8 percent for large turnip roots. Forage turnips and rape provided large quantities of forage in the fall when perennial forage crops are not productive. The Brassicacae provide an effective way to extend the fall grazing season into December in most parts of the northeastern U.S.