

Dung beetles transport cations into the soil

Dung beetles have the potential to improve pastures through the incorporation of manure into pasture soils. Two dung beetles, *O. gazella* and *O. taurus*, were evaluated in the laboratory for improved soil quality. The test soil was a coastal plain sandy-loam, common to eastern North Carolina. Treatments included bovine dung alone, dung plus *O. gazella*, dung plus *O. taurus*, and a no-dung control. The presence of beetles improved levels of P, K, Mg, and the sum of the cations in soil beneath the dung pat (Table 2).

Table 2. Analysis of soil treatments, using Mehlich³ Extraction (North Carolina Department of Agriculture and Consumer Services).

Treatment	P (mg/dm ³)	K (meq/100cm ³)	Mg (meq/100cm ³)	Sum Cations (meq/100cm ³)
Sandy-loam Pre-treatment	99.40	0.08	0.53	1.66
Sandy-loam + Dung	174.73	0.18	0.87	2.64
Sandy-loam + Dung + <i>O. gazella</i>	204.57	0.25	1.06	3.35
Sandy-loam + Dung + <i>O. taurus</i>	196.01	0.23	0.98	3.04