

Supporting Information

Table S1. Pathogen load [community pathogen load (*l*); *Cyperaceae* pathogen load (*Cl*); Forb pathogen load (*Fl*); Grass pathogen load (*Gl*); Legume pathogen load (*Ll*)] and community disease proneness (*p*) (g; mean \pm SE) under no grazing (CK), sheep grazing (SG), yak grazing (YG), and mixed grazing by yak and sheep (MG) treatments.

Grazing treatment	<i>l</i>	<i>p</i>	<i>Cl</i>	<i>Fl</i>	<i>Gl</i>	<i>Ll</i>
CK	9.4 \pm 0.6	11.5 \pm 0.3	24.3 \pm 1.0	1.7 \pm 0.2	7.8 \pm 0.6	0.1 \pm 0.1
SG	5.4 \pm 0.8	10.3 \pm 0.4	16.7 \pm 1.7	1.1 \pm 0.1	3.2 \pm 0.3	0.04 \pm 0.02
YG	5.4 \pm 0.4	10.6 \pm 0.5	16.6 \pm 1.1	1.0 \pm 0.1	4.5 \pm 0.3	0.03 \pm 0.02
MG	4.8 \pm 0.8	8.8 \pm 0.3	13.2 \pm 0.7	0.8 \pm 0.1	3.5 \pm 0.4	0.00 \pm 0.00

Table S2. Plant community characteristics [Shannon-weiner index (*H'*); Pielou's evenness index (*Je*); species richness (SR); plant total coverage (PTC); plant aboveground biomass (PAB)] (g; mean \pm SE) under no grazing (CK), sheep grazing (SG) yak grazing (YG), and mixed grazing by yak and sheep (MG) treatments.

Grazing treatment	<i>H'</i>	<i>Je</i>	SR	PTC	PAB
CK	2.3 \pm 0.1	0.9 \pm 0.0	12.9 \pm 0.2	94.0 \pm 2.0	200.1 \pm 25.4
SG	2.2 \pm 0.1	0.8 \pm 0.0	12.8 \pm 0.4	79.3 \pm 0.3	213.3 \pm 13.7
YG	2.2 \pm 0.0	0.8 \pm 0.0	14.7 \pm 0.5	78.8 \pm 2.4	245.1 \pm 13.0
MG	1.9 \pm 0.1	0.8 \pm 0.1	12.8 \pm 1.1	76.2 \pm 1.7	186.0 \pm 28.5