Supplemental Table S1. Variation in development for *Avena sativa* phenological stages in days after planting (dap) for forage oat selections grown in highland Colombia (>2000 masl), including the following selections from the composite variety AV25: namely, AV25-P (early), AV25-C / AV25-S / AV25-T (all intermediate) and AV25-Ta (late) with growth periods as defined by the Zadoks et al. (1974) scale.

Phenological Stage	Zadoks et al. (1974)-Scale	Early (dap)	Intermediate (dap)	Late (dap)
Germination (extended coleoptile)	Z0.9	9	9	9
Leaf Development (first true leaf)	Z1.1	10	10	10
Tillering (initial tiller stage)	Z2.1	26	30	50
Stem Elongation (first node)	Z3.1	36	45	75
Booting stage (extended flag leaf)	Z4.1	47	69	90
Flowering (flower panicles)	Z5.1	59	81	110
Anthesis (pollen shed)	Z6.1	71	95	150
Grain Fill (milk stage)	Z7.1	86	130	165
Grain Fill (starch stage)	Z8.1	110	145	165
Mature Grain (dry seed)	Z9.1	125	182	210

Supplemental Figure S1. Neighbor-Joining dendogram for genetic clustering among 88 forage oat genotypes evaluated by the 6K SNP chips. Dots are colored following same coding as in Figure 2.

Supplemental Figure S2. Unsupervised genetic clustering of 88 individual plants from seven forage oat cultivars. Each is represented by a single vertical line divided into K colors, where this is the number of groups; length of the colored segment represents the estimated proportion of sample membership to a particular group. Bars in K = 4 are colored following Figure 2: orange and blue dots shown as blue bars for purified genotypes AV25-S (29 samples) and AV25-T (30 samples) with some of the AV25-C genotypes (13 samples); the bars in brown were AV25-P and a single AV25-S sample; and purple bars included commercial varieties and AV25-Ta.