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What Feral Horses Eat

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The diet of feral horses in the Intermountain West of the United States includes native grasses, forbs, and shrubs as well as introduced naturalized grasses and forbs that have invaded native rangeland. Samples were collected under environmental conditions and stage of growth when Non Structural Carbohydrate levels should be at highest levels. These were compared with samples of introduced, improved grasses under similar environmental conditions. All samples were placed in a cooler on ice packs, frozen within a half hour, shipped on dry ice overnight and analyzed by Dairy One, Ithaca, NY.

Deep rooted, native shrubs known to be eaten by feral horses, contained 12-13% dm crude protein, with good levels of major and trace minerals. Copper and zinc levels were higher than found in local cultivated grass hay.

Overall, native and naturalized grasses in the intermountain region of the US are lower in NSC concentration than 'improved' species commonly used for pasture and hay in the same region, under the same environmental conditions. Many samples of native and naturalized grass tested <12% NSC dm, and some of the most abundant species tested below 9% NSC dm even at early stages of growth. At no sampling date did any of the native or naturalized grasses test higher than average pasture grass for NSC (15-18% dm), even under worst case environmental conditions, or stage of growth. Improved varieties of grass grown in the same region frequently contain 20+% NSC, under the same conditions. Because native grasses generally have a 'bunch' growth habit, with much bare ground between, the NSC per acre is significantly lower than cultivated pasture. In spring and early summer, certain species of rangeland forage at early stages of maturity may have concentrations of NSC that approach that of 'average' cultivated pasture grass. This time period is when feral horses are nursing young, engaging in courting and breeding, and building reserves lost during winter. Standing forage that feral horses depend on during winter loses nutrients over time, while hay cut at maximum nutrient density removes the seasonal variation of domestic horse diets. The diet of feral horses is lower in NSC than most domestic horses on improved pasture and they must exercise to obtain enough to eat.