Field Peas in Diets for Growing Heifers and Backgrounding and Finishing Steer - Progress Report

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Tield peas are a new and nutritionally dense feed stuff. A series of trials were conducted to evaluate intake and performance of beef cattle fed peas. In a demonstration trial, weaned heifer calves (n=38) were randomly allotted to two pens and limit fed high forage diets with field peas or wheat midds as the grain source. The totally mixed diets were fed once daily in fenceline bunks. Other ingredients were corn silage, chopped hay, and straw. Average daily gains were 1.86 for heifers fed peas at 4.95 pounds per day compared to 1.73 pounds of gain from wheat midds at 4.99 pounds. Gain per unit feed was 0.136 for peas and 0.134 for midds. In a second trial, growing steer calves (n=46) were blocked by weight and allotted to six pens with three treatments: 1) field peas as the primary grain source; 2) barley at the same level as Control but with canola meal added to equalize the crude protein level of the field pea diet; and 3) barley as the primary grain source with protein levels recommended by NRC (control). Backgrounding steers consumed an average of 16.06 pounds dry matter with peas in the diet, 15.34 on high protein barley, and 15.14 on control barley. Gains were 2.88 on peas, 2.79 on high protein barely and 2.58 on control barley. Gain per unit feed averaged 0.181 for peas, 0.184 for high protein barley, and 0.173 for control barley. A third trial compared field peas to barley in finishing diets. Steers consumed an average of 21.87 pounds of dry matter with peas as the only feed grain in the rations compared to 20.57 for barley. Average gains were 3.71 for peas and 3.66 for barley with gain per unit feed averaging 0.170 for peas and 0.178 for barley. Peas appear to be a very palatable and nutrient dense grain source. Feed costs need to be carefully compared with other feed grains when developing least cost rations.