



Northern  
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## Peas Produce Positive Beef Performance

### New pea forage study repeats pattern of improved gains

*Bismarck, ND*--If you mind your P's and Q's, you'll make sure the first... that is, *peas*, are part of your cattle rations. Another just-completed study on field peas confirms that peas are an excellent way to boost animal performance. This trial looked at field pea forages in steer finishing rations, while recent previous work zeroed on the positive response to field pea concentrates.

Regardless the form, it appears that the superior palatability and digestion of this safe, nutrient-dense legume typically results in improved gain and feed efficiency over other ration ingredients. The pea-forage study fed tub-ground forages at 14% of dry matter in a corn-based finishing ration for 112 days after a growing phase with 30% pea forage in the ration. The 7-weight steers were fed to a market weight of about 1,350 lb. to compare forage from prairie hay, pea residue, pea hay and pea-barley hay. All the rations were balanced to provide 13.4% to 13.9% protein with similar net energy, calcium, phosphorus, potassium and dry matter levels.

**At 4.00 lb. per head ADG**, cattle on the pea hay gained the most overall, followed by 3.83 ADG for those fed pea-barley hay, 3.74 ADG for those fed pea residue forage and 3.69 ADG for the steers on the prairie hay ration. First period gain advantages were even more pronounced for pea forages with pea barley hay fed steers gaining 4.70 lb. per day; pea hay fed

steers gaining 4.64 lb. per day and pea residue fed steers gaining 4.40 lb. per day compared with 3.83 lb. per day for prairie hay fed steers. "This, as well as our other trials, indicates that younger animals can really benefit from the palatability and nutrient density of field pea grains and forages," says North Dakota State University (NDSU) Animal Scientist Dr. Vern Anderson, who spearheaded this research trial.

**These gain differences are relevant** to all cattlemen who can grow peas, Anderson says, and repeat the positive pattern of improved gains found in previous field pea studies. Statistical significance, intake, feed efficiency, carcass traits and steak tenderness evaluations are still underway. "We'll have final results in a few weeks," says Vern Anderson. "Based on the raw data, this study shows another positive outcome for peas in livestock diets."

Indeed, the growing body of evidence for putting field pea grain or forages in beef cattle rations includes previous work by NDSU that found that steaks from pea-fed beef were significantly more tender than those from non pea-fed cattle. This sizable tenderness advantage was "vetted" when researchers at the University of Nebraska also looked at the phenomenon and produced similar results. But producers needn't sell direct to consumers or be in a branded beef program to benefit from using peas in their beef cattle diets. With energy equal to corn on a weight basis, and nearly three times its crude protein (24.5%) , field peas are a nutrient-dense grain (60 lb. per bushel) and a leafy, palatable forage.

**With their excellent binding properties**, peas are a natural ingredient for pelleted creep feeds and range cakes, but should be dry rolled in home-mixes. Using 20% to 40% field peas in creep formulations have repeatedly produced faster gains because of improved palatability, digestibility and nutrient density. Peas can also help beef cows digest low quality forage more

thoroughly providing a highly rumen degradable protein source that supports healthy microbial populations.

Seedstock producers also indicate a strong preference for field peas in developing bull rations, citing satiety and positive effects on muscle development and feet and leg soundness. In both backgrounding and finishing phases, feedlot cattle benefit from the complimentary relationship between corn and peas. Both have slow and thorough fermentation and provide a balanced digestion pattern that includes both rumen degradable and undegradable protein.

**Peas are particularly well suited** for getting stressed, just weaned calves off to a healthy start. Feeding calves a diet that includes a minimum of 15% dry rolled field peas has repeatedly produced significantly better gains during the weaning phase as well as for several weeks after peas were removed from the diet.

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***SIDEBAR:***

## Cover Crop Plus: Use peas to rescue drought or drowned cropland

If your alfalfa winterkilled, droughted or drowned, peas are an excellent replacement and offer the flexibility to fit rotations better than a perennial.

Field peas and cereal grains like forage barley or oats can be grown together to make a high quality, high-yielding, easy-to-harvest forage. These pea-cereal crop blends often produce close to the same level of cattle performance as peas alone. With decent moisture after grain harvest, a second crop of peas may be possible using light tillage after combining. Graze it, cut it for hay or plough it under as a green manure crop. For more information on these and other growing and feeding tips, visit [www.northernpulse.com](http://www.northernpulse.com).

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