Effect of Dietary Vitamin E on Rumen Biohydrogenation Pathways and Milk Fat Depression in Dairy Cows Fed High-Fat Diets. By Pottier et al., page 685. Addition of vegetable oil to the diet of dairy cows improves the nutritional properties of milk fat (higher level of unsaturated fatty acids and conjugated linoleic acids). After some time however, this may result in a shift in major biohydrogenation pathways—decreased formation of trans-11 isomers and increased formation of trans-10 isomers in the rumen, leading to decreased milk fat and milk conjugated linoleic acids contents. However, addition of high doses of vitamin E in high-fat diets can limit those negative effects.