with three steers (374 kg ± 6.43 initial BW) per paddock. All steers had access to salt and minerals free-choice. Grazing was initiated on Jan 19, 2006, when average forage mass reached 1000kg ha^{-1} as the first of two replicate years. When forage quality could no longer sustain growth, cattle were transported 50 km to the Auburn University Lambert-Powell Meat Laboratory and humanely harvested. Carcass data, pH, lean and fat color was measured 48 h postmortem and a boneless ribeye roll was removed from each carcass, vacuum-packaged, and stored (4C) until 21 d postmortem. Steaks were removed from the posterior end of the ribeye roll, overwrapped in PVC film and stored under simulated retail conditions for 7 d. Lean color was measured daily on each steak to monitor L*, a*, and b* values. Average daily gain was not affected (P > 0.10) by forage treatment. Type of forage did not affect (P > 0.50) HCW, preliminary yield grade, KPH fat%, LM area, maturity, marbling, final yield grade or final quality grade. Carcasses from steers finished on rye tended (P = 0.08) to have lighter (higher L* values) subcutaneous fat color compared to carcass from steers finished on either ryegrass or oats. Subcutaneous fat redness and yellowness and lean lightness, redness, and yellowness did not differ (P > 0.24) among the three forage treatments. Lean lightness (L*) and redness (a*) decreased (P < 0.05) with increasing days of retail display. The type of forage used to finish steers did not (P > 0.0 affect color traits of steaks under retail display. Type of forage us o finish Angus-cross steers does not affect carcass or meat color t

Key Words: Forage-Fed, Beef, Carcass

745 Impact of litter size and birth weight on growth performance, carcass characteristics, and meat quality in pigs. J. Bérard[1], M. Kreuzer[2], and G. Bee*[1], [1]*Agroscope Liebefeld-Posieux, Research Station ALP, Posieux, Switzerland*, [2]*ETH Zurich, Institute of Animal Science, Zurich, Switzerland.*

There is some evidence that within litter low birth weight (**Btw**) pigs not only grow slower and have fatter carcasses but also meat quality traits are impaired compared to their high Btw siblings. Because the variability of the Btw is greater in large compared to small litters, the aim of this study was to test the hypothesis that effects of Btw on growth performance, carcass characteristics, and meat quality in the LM and the light portion of the semitendinosus muscle (**ST**) are different when pigs originate from small or large litters. The 60 Swiss Large White barrows used originated from 20 litters with either less than 10 (**S**) or more than 14 (**L**) piglets born per litter. Within each litter, the lightest (**L-Btw**), the heaviest (**H-Btw**), and the barrows with a Btw nearest to the average Btw of the litter (**M-Btw**) were selected. At weaning the barrows were individually penned and had free access to the diet until slaughter at 105 kg BW. The Btw of L- as compared to S-litters were lower in L-Btw (1.2 vs. 1.6 kg) and M-Btw barrows (1.6 vs. 1.9 kg) and similar in H-Btw barrows (1.9 vs. 2.0 kg) (litter size × Btw interaction; $P < 0.01$). The L-Btw barrows grew slower (0.81 vs. 0.90 kg; $P < 0.01$), ingested less feed (2.30 vs. 2.42 kg; $P = 0.03$), and were still less efficient (2.84 vs. 2.71 kg feed/kg gain; $P < 0.01$) than H-Btw- and M-Btw barrows, regardless whether they originated from S- or L-litters. The carcass yield was higher (81 vs. 82%; $P < 0.01$), the liver (1.58 vs. 1.74 kg), and kidney (0.31 vs. 0.34 kg) were lighter ($P \leq 0.01$) in L-Btw barrows in the S- and L-litters. Drip loss and shear force was neither affected by litter size nor by Btw. The LM of L-Btw was less red (6.1 vs. 6.9; $P = 0.02$) than the LM of H-Btw barrows and b*-values of the ST was lower (3.4 vs. 3.8; $P = 0.03$) in barrows originating from L- than from S-litters. The present results confirm the marked effect of Btw on growth performance whereas the hypothesized impact on carcass characteristics and meat quality could not be demonstrated. Although the litter size affected average Btw its impact on growth performance, carcass and meat quality was minor.

Key Words: Birth Weight, Litter Size, Meat Quality

Extension Education - Livestock and Poultry: Extension Dairy Session

746 A Net Present Value Dashboard of the dairy cow in a commercial setting. D. T. Galligan*, J. Ferguson, R. Munson, and D. Remsburg, *University of Pennsylvania, School of Veterinary Medicine, Kennett Square.*

An economic model of the production life of a modern dairy cow was created in a dashboard environment. The user enters information that characterizes the production life of a cow using sliders arranged in a menu driven series of screens: Milk and Feed $, Reproduction, BST, Heifer, Finance, Other Cost, Labor, Longevity. Over 30 input variables (management factors, production parameters, economic values) are controlled by the user. Based on entered values, an economic model of annual cash flows is created and discounted to reflect the opportunity of value money. Several gauges show: the cow net present value, annuity value per year, internal rate of return estimate, time in the herd and the resulting cull rate. These gauges respond to user changes of inputs instantly demonstrating the magnitude of impact. Lactation yields are shown in a graph format and are changed by altering first lactation yields. For example a cow having 3 lactations and culled at 100 DIM in the last lactation, with a first lactation yield of 22,000 (305 milk) valued at $13/cwt, with debt/cow at $2000 financed at 7% over ten years will have a NPV of $662 and an annuity value of $160. Use of BST starting at 100 DIM in all lactations, will increase the NPV to $925 and the annuity value to $226, assuming a 10 lb daily response and a start DIM at 100 for each lactation. Other investment strategies can be explored with the model.

Key Words: Net Present Value, Economics, Dashboard

747 Accuracy of prediction of future uniform milk prices in Florida from Class III and IV futures markets. S. Feleke* and A. De Vries, *University of Florida, Gainesville.*

The objective of this study was to evaluate the accuracy of a method to predict the future uniform milk price in Florida from the Class III (cheese) and Class IV (butter) futures markets. Milk futures contracts are traded at the Chicago Mercantile Exchange for delivery 1 to 18 months in the future. Futures market theory holds that futures prices may be unbiased predictors of spot prices. The uniform milk price in Florida is a function of the announced Class III and IV prices, butter price, and the utilization of Class I, II, III, and IV skim milk and butterfat prices. To accurately predict future uniform milk prices, unbiased estimates of these factors are needed. Therefore, future butter prices were predicted from the future Class IV price and the ratio of the most recently announced butter price and the Class IV price. Future