College of Agriculture and Life Sciences Department of Dairy Science

Precision Phosphorus Feeding Incentive Program

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Cooperating Partners

NRCS Natural Resources Conservation Service

Virginia Department of Conservation & Recreation

Virginia Tech | Virginia Cooperative Extension "Knowledge for the CommonWealth" | Virginia State University

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What is Precision Feeding?

Feeding to meet the animals nutritional requirements for production, reproduction, and health by ration formulation and feed delivery

The archived presentation is available at:
http://www.extension.org/pages/Precision_Phosphorus_Feeding_for_Dairy_Cattle

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Dietary Nutrient Management:

What goes in . . . must come out.

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"P" Report to Dairy Producers

- A minimum of five samplings of feeds were necessary to generate a P Report for a farm
- Information required was a laboratory analysis of total mixed rations or individual feeds, average milk production per cow, and average body weight
- From this the required grams of phosphorus per cow was generated and compared to the actual grams consumed

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Payment

- There was a three-tier compensation plan based on the 2001 NRC P requirement
  - -less than 105% results in $12 per cow
  - -105 to 115% results in $6 per cow
  - -115 to 125% results in $3 per cow
- Greater than 125% results in no payment
- Maximum payment will be $4,800 for one year or $9,600 for two years if the farm qualifies for both years

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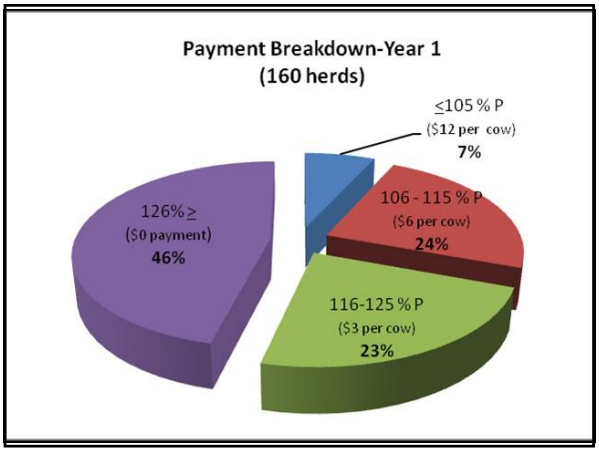
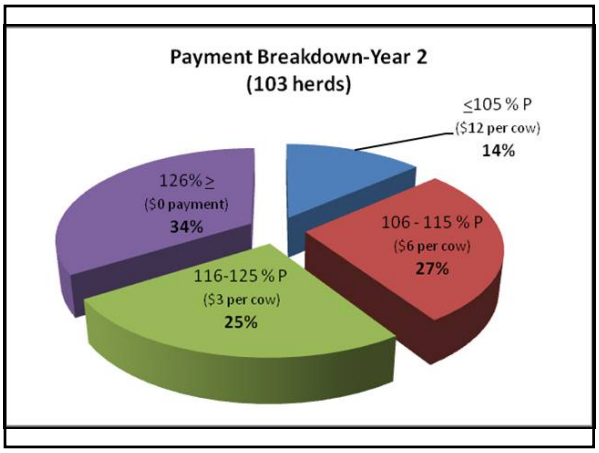
Further Considerations

- A farm could drop out at any time
- The owner/manager could decide what is feasible from their individual standpoint
- No herd was be removed from the project for not meeting goals for P intake





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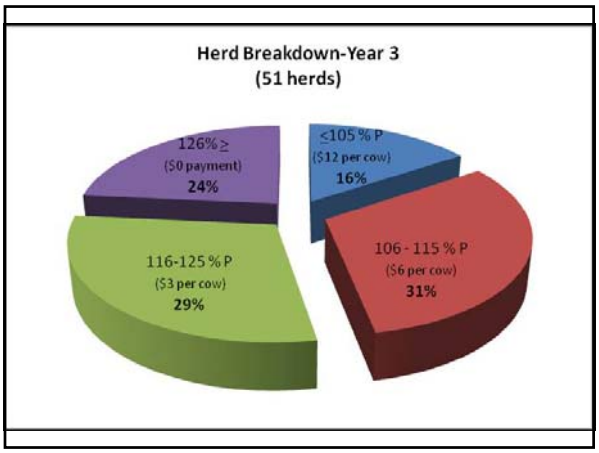

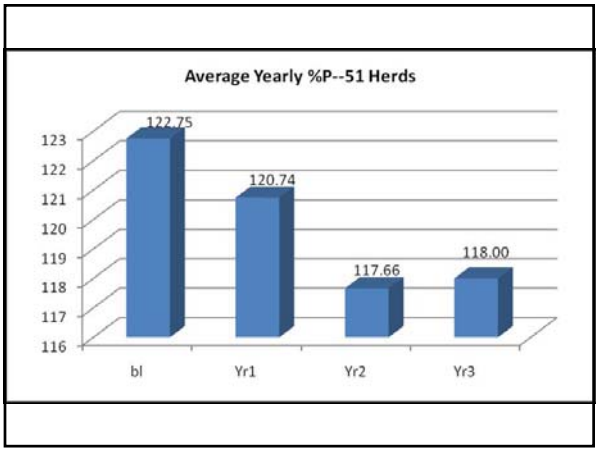

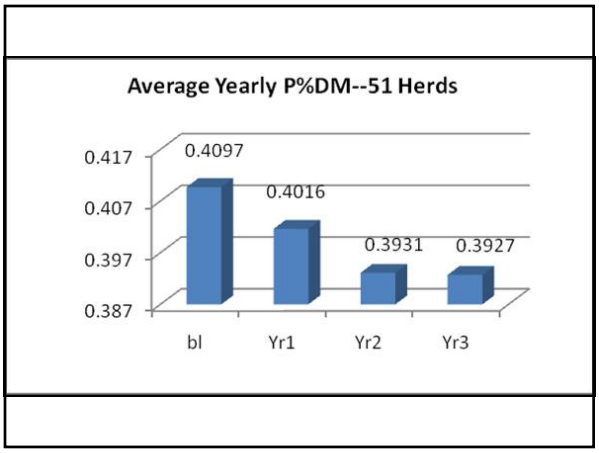

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Some lessons learned

- Nutritionists and dairymen are not hesitant to remove inorganic sources of P from rations if P requirements are met
- Forages and pastures do not always have low levels of P
- High corn prices appear to have increased the use of high P by-product feeds in 2008
- Ration modification to select low P feeds is not typically done

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Conclusions

- Feed management has the potential to reduce excess excretion of nitrogen and phosphorus by dairy cows
- The incentive program has generated an awareness of phosphorus levels in rations
- The ten herd intensive project has resulted in herds being more aware of fluctuations in amounts and proportions of feed offered as well as nutrient content