

PROJECT SUMMARY

Title: **An Integrated Approach To Improving Dairy Cow Fertility**

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This is an Extension-Research Integrated proposal addressing FY 2009 priorities of: (1) Improving Fertility in Agricultural Animals and (2) Preventing and Controlling On-Farm Disease. Our overall objective is to improve the reproductive efficiency of dairy cattle using an interdisciplinary team approach that will identify and remove barriers to reproductive success by linking outcomes of basic and applied research with an innovative producer responsive extension program. Five Specific Aims will address this overall objective:

- (1) Characterize the contributions of specific management factors to cow fertility,
- (2) Determine the impact of specific nutritional components on reproductive performance,
- (3) Quantify the impact of mastitis on fertility and pregnancy loss,
- (4) Evaluate the economic impact of reproductive management strategies on overall farm sustainability, and
- (5) Generate measurable improvement in the reproductive performance of dairy herds by developing and implementing an integrated team-based extension program that builds on existing professional relationships with the dairy farm community.

The combination of internationally recognized, research-based state specialists, effective county-based extension agents, modern dairy research units, numerous and diverse commercial dairy operations, state-of-the-art laboratory and computational resources, and an established track record of effective, collaborative research and outreach activities within a single unit makes Wisconsin uniquely positioned to achieve these objectives. Results from this project will lead to novel approaches to optimize reproductive efficiency and enhance the sustainability of dairy farms through implementation of a novel extension educational program that will be developed in Wisconsin and subsequently transferred throughout the US via collaboration with eXtension.

Approved Budget: \$1,000,000 (1 million) over 4 year period (2010-2013) (of \$4,000,000 program funding available)

Program: USDA-NIFA-AFRI Integrated Solutions for Animal Agriculture (92620)

Ranking: #1 of 62 Letters of Intent Received, 25 Full Applications Invited, and 22 Standard and 1 Strengthening (seed) Applications Received.