Reproductive Performance of Animals

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Reproductive Performance of Animals

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals			95%	
304	Animal Genome			5%	
	Total			100%	

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	1.2	0.0
Actual	0.0	0.0	0.5	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	75661	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	293665	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	345471	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The bovine uterine health subprogram investigator is conducting an experiment to determine whether a hormonal treatment regimen used to synchronize estrus in beef heifers alters the function of the developing corpus luteum. The male fitness in poultry investigator has used a poteomics approach to identify key proteins that affect sperm cell function, specifically, proteins affecting intracellular calcium homeostasis will be investigated. Proteins extracted from sperm will be separated by electrophoresis and weatern blotting will be used to determine calreticulin content. This investigator has developed an experimental model, which is under review at this institution's Office of Technology Transfer. Results for the program have been disseminated through annual meetings and publications.

2. Brief description of the target audience

Target audiences are scientists working in reproductive physiology, Extension personnel, genetic companies in all species and Oregon producers, poultry breeders.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	100	300	0	0
2007	75	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year	Target
Plan:	0
2007:	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	2	2

V(F). State Defined Outputs

Output Target
Output #1

Output Measure

DEVELOP BETTER UNDERSTANDING OF BASIC PHYSIOLOGY OF PLANTS AND ANIMALS - Inform peers of factors affecting differentiation and outgrowth of endodermal cells from the bovine inner cell mass during the formation of extraembryonic endoderm. (Menino) - inform peers of the relationship and interactions between the immune and reproductive systems with regard to establishment and maintenance of pregnancy. (Cannon) - conduct experiments on physiological constraints limiting gamete viability (Froman) 1/yr

Year	Target	Actual
2007	10	1

Output #2

Output Measure

CARRY OUT STUDIES TO DECIPHER GENOMES, GENETICS AND MECHANISMS OF PLANTS AND ANIMALS - describe effects of the reproductive hormones on gene expression and cell function - Know expression patterns and identity of cells expressing suppressors of cytokine signaling genes, and how these genes are regulated in reproductive tissues

Year	Target	Actual
2007	0	3

V(G). State Defined Outcomes

O No.	Outcome Name
1	Knowledge gained regarding reproductive biology - Peers gain new information regarding the developmental biology of the early bovine embryo and factors affecting establishment of extraembryonic endoderm - Peers and producers learn new means to improve fertility in dairy cattle and to reduce uterine infections - Peers gain detailed knowledge of sperm cell function and a conceptual basis for understanding a genetic basis for fertility in male poultry
2	Improved fertility and genetic stock - Producers and animal health professionals use information to improve fertility and prevent uterine infections in dairy cattle into every-day on-farm practices. - Industry stores sperm cells with minimal loss of function for use as a commodity and for long-term maintenance of genetic stock
3	Reduced costs and economic benefits achieved - Costs associated with uterine disease and infertility in the dairy industry are reduced - A method for cryopreservation of poultry semen enables an emergence of frozen poultry semen as a commodity, and it changes the way in which commercial breeders of poultry conduct their business, i.e., through reproductive management of male stock, selection schemes, retention of traits in the form of cryopreserved semen, and the emergence of cryopreserved poultry semen as a commodity - A collateral effect will be improved semen preservation in vertebrates in general.

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Outcome #1

1. Outcome Measures

Not reporting on this Outcome for this Annual Report

2. Associated Institution Types

3a. Outcome Type:

3b. Quantitative Outcome

Year	Quantitative Target	Actual

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area

V(H). Planned Program (External Factors)

External factors which affected outcomes

Economy
Government Regulations

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}