The University of Tennessee at Martin

Agriculture 720

Final Report

Submitted by
Hugh Moorehead
Legal Status and History

My internship for the Fall Semester 2001 occurred at the University of Tennessee Dairy Experiment Station (DES). DES is one of eleven branch stations of The University of Tennessee Agricultural Experiment Station (TAES), which is a division of the Institute of Agriculture at the University of Tennessee. The U.T. campus in Knoxville, which was established in 1794, became the state's land grant institution in 1862 with the passing of the Morrill Act. This law provided the means in which to establish at least one college per state that would teach agriculture and mechanical arts. The Second Morrill Act, passed by congress in 1890, provided annual appropriations to support each state's land grant college.

First established in 1882, TAES was mandated to develop new technology that would enhance the state's agricultural economy to help ensure a stable supply of high-quality food and fiber at a reasonable cost. This occurred five years before passage of the Hatch Act, which authorized the establishment of an agricultural experiment station in every state and provided annual federal appropriations for a national effort to provide a research base in agriculture. TAES was the fifth experiment station to be created in the United States. Early research efforts were concentrated on improvement of crop and livestock performance, the classification and study of insects and disease, and the improvement of food production. TAES researchers still endeavor to make improvements in these areas today. However, their mandate has expanded to include natural resource management, nutrition and food science, economics and rural development, and other agriculture-related topics.

DES was originally a federal research facility established in 1929 after congress passed legislation directing the Secretary of Agriculture to create and maintain a dairy and livestock demonstration station for the "South" (appendix 1). Until that time all major dairy research had been conducted in northern climates. Southern dairy farmers were in need of answers to feeding and housing questions for cattle living in southern climates. The Tennessee State Legislature appropriated $50,000 for the purchase of the land and the station was operated by the United States Department of Agriculture until 1948 when the University of Tennessee became a cooperative agency. The station was a joint operation between the state and the federal government until 1994, when USDA turned the operation over completely to the university.

Marshall County Tennessee was chosen for the station site. The farm that was purchased for the station originally consisted of 480 acres with 300 acres that were suitable for pasture and row crops. An additional 135 acres in an adjoining tract was purchased in 1955. The foundation herd was purebred Jersey cattle acquired from Vermont, Maryland, and Louisiana in 1929. Cattle were added in the early 1950's from the Hatch Farm in Missouri and the Middle Tennessee Experiment Station at Columbia, Tennessee. Since that time the herd has been self-contained and consists of approximately 195 cows and 165 heifers.

The production and use of high quality forage was the focal point of the research program in the early history of the station. Over the years the program expanded to include solid waste management, housing concerns and reproductive issues. In the last decade the focus has shifted to the prevention and cure of both contagious and environmental mastitis. DES participates in one of the most integrated and
comprehensive mastitis abatement programs in the country. This program includes management trials, investigations of new antibiotics, and the development of vaccines. Most recently the program has come to include the use of cloning technology. Over the years certain cow families with certain genotypes have been found to be disease resistant, it is the hope that cloning will help propagate these bloodlines more extensively.

DES operates as a Grade-A milking facility under Tennessee Department of Agriculture permit number T59-013. As such, the facilities must conform to the standards and regulations set by the U.S. Department of Agriculture in order to sell milk to the public. Milk from DES is sold through Dairy Farmers of America, a producer owned cooperative. As members of this cooperative our pay price is dictated by quantity incentives and quality standards. If our product falls below minimum standards our price is docked, if we exceed the minimums we are paid a premium (appendix 2).

As a research facility that deals with animals DES must meet certain guidelines concerning animal welfare. Every research protocol that involves the use of animals must be reviewed and approved by the institutional animal care and use committee (IACUC). The IACUC for the Institute of Agriculture is a 5-member committee, one of whom is a veterinarian and one who represents the community at large (appendix 3).

General Administration

DES is an educational research facility of the State of Tennessee within the University of Tennessee. As an employee of DES, I receive supervision from the Station Superintendent. Each branch station has a Superintendent who answers to the Assistant Deans and the Dean of TAES. The Deans of TAES fall under the supervision of the Vice President for Agriculture who in turn answers to the President of the University. The President of the University receives guidance from the members of the Board of Trustees who are appointed by the Governor of the state (appendix 4). The Governor also serves as chairman of the board. Starting with the President and down through the ranks, these positions are filled by committees selected from each positions respective governing division. These committees review and select prospective candidates. After careful deliberation the committee picks the most qualified candidate for the job and submits their choice to all the involved parties. If the candidate is approved and all parties involved agree upon all terms of employment, the position is filled.

I have included the Institute of Agriculture's mission statement in appendix 5. DES specifically fulfills its responsibility by helping to "maintain a strong basic and applied research program". DES accomplishes this by conducting department approved research trials, which are developed by and administered by research professors within the Institute of Agriculture (appendix 6). After a trial is completed, the data is analyzed and compiled by the supervising professor for submission for peer review and publication within the scientific community. Findings are relayed to our communications department who in turn provide avenues to the public through popular press releases. Our Agricultural Extension department is also instrumental in providing information to agricultural companies and producers across the state.
Internal Organization and Fiscal Affairs

The station secretary, under direct supervision of the Superintendent, conducts day-to-day business for DES. The secretary is responsible for paying bills incurred by the station. This involves justifying the invoice either by packing slips or supervisor approval and submittal to the Treasurer's office for payment. The secretary also handles deposits of incoming funds. The secretary also serves as the human resource officer for the station. In this capacity all issues concerning payroll, benefits, workman's compensation, and other concerns of station employees fall under his or her care. In the past all these procedures had specific forms that had to be submitted to the appropriate departments (appendix 7), but we are in the process of switching to an online computer program known as IRIS that will be used for all these transactions (appendix 8). The secretary also has access to help from departments within the university to assist her in the completion of all these transactions (appendix 9).

Research assistants, under direct supervision of the Superintendent, are responsible for maintaining herd health and conducting daily operations of research trials. All data collection forms have a unique identification number to connect them to specific work plans (appendix 10). Daily health and reproduction actions are recorded on a daily worksheet, which are in turn transferred to a computerized database and an individual animal record card (appendix 11).

DES also has a crew leader who, under the direct supervision of the Superintendent, is responsible for assigning duties to the farm crew for daily operations. These operations would include the planting and harvesting of crops, building and vehicle maintenance, grounds keeping, and assisting in the research collection. He or she is also responsible for daily timesheets for the farm crew.

There are three classifications of employees working at DES (appendix 12). First there are exempt employees, they are basically paid to do a job. If it takes 100 hours to do that job or only 40 hours, the compensation is the same. They are referred to as the professional staff and their position requires more educational background than the other job classifications. The second group is nonexempt employees. These employees are paid by the hour and have fewer responsibilities than the exempt employees. The last group is part-time employees and they too are paid by the hour, however they receive no extra benefits such as leave time or insurance. These employees are mostly high school and/or college students hired to help on weekends and after school.

Exempt employees at DES must be selected and interviewed by a search committee (appendix 13). Position announcements for exempt employees must be posted for a minimum of 2 weeks (appendix 14). Announcements for these positions are sent out regionally and must meet all anti-discrimination requirements (appendix 15). Non-exempt positions are only required to be posted locally and for a minimum of 1 week. The Superintendent has sole authority to interview and fill these positions. Part-time positions have the same requirements as nonexempt positions unless they are students. Students can be hired without any interviewing process for part-time service.

The budget for DES is an income generated and state appropriation budget that is allotted for the fiscal year that begins July 1 each year. The Deans of TAES look at historical data for income generation of each station and divide state appropriations as they see fit between the 11 branch stations to create our budget allotment for the year. If
income generation falls short at the end of the year the Deans have emergency accounts that are used to help balance the budget. If income generation for the station exceeds the fiscal year estimates, that surplus can be designated for specific items in the next fiscal year such as purchase of a new vehicle or tractor. If extra monies are not specifically designated these funds are returned to TAES accounts to be redistributed at the discretion of the Dean’s office.

The major budget categories for DES include wages and salaries, employee benefits, repair and maintenance, utilities, and operating supplies. DES supplies the majority of employee wages and salaries through income generation. At the present there is one exempt position that receives half of his salary from the Animal Science department. The University provides all full-time employees a benefits package that includes 80% payment of health insurance, a retirement plan, paid holidays, and leave time and others (appendix 16). The monies used to cover these expenses are kept in TAES accounts so in essence that is money that would otherwise be divided between the stations if it were not used for employee benefits. All other budget items must be paid with income generated on the station.

The major income for DES comes from the sale of milk. Other incomes generated by DES would include the sale of excess commodities, the sale of breeding stock, and the sale of surplus animals. Approximately 70% of our working budget comes from these sources. Our share of state appropriations supplies the remainder. Occasionally we have contracts with private companies to test specific products such as a feed additive. However, the money from these contracts is used exclusively for the cost of those specific tests.

Allocation of the DES budget is based on the discretion of the Superintendent. There are currently 6 employees who have purchasing cards that can be used like credit cards at local businesses. Each card can be used to purchase a maximum of 2000 dollars per day of goods and services. Invoices from companies that will not accept the purchasing card are approved by the Superintendent and sent to the Treasurer’s office for payment. For major purchases over 5000 dollars bids must be taken. Specifications must be written for each item that will avoid any proprietary bidding. These specs must be approved by the Dean’s office and then offered to at least 2 vendors. Vendors have 14 days to produce a bid that is presented to a purchasing agent with the Institute of Agriculture who reviews each bid and awards it to the appropriate party.

There are two major problems that DES is faced with when trying to maintain a balanced budget. The first is the fluctuation of milk prices. Several factors affect milk prices such as consumer demand, seasonal surplus, and transportation costs, all of which we have no control over. Secondly, state appropriations can vary greatly from year to year which we also have little control over.

Public Relations

The main objective of the Institute of Agriculture is to educate the public in all facets of its mission statement (appendix 7). The Institute has a communications department that is responsible for most public relations issues. Several venues are utilized in their public relations program. They maintain a very comprehensive web site for all the departments within the Institute of Agriculture. They produce educational pamphlets that
are distributed across the state in Extension offices and Experiment Station offices (appendix 17). They are also responsible for press releases concerning research findings to the mass media such as newspaper articles and televised news conferences.

DES plays its role in public relations by hosting field days and on farm demonstrations for the public. DES provides tours for public and private school children at no cost. DES also cooperates with the local Extension office by conducting instructional seminars for local producers concerning timely issues such federal waste handling regulations. Finally, DES provides the raw data for research protocols to be published in refereed journals and popular press articles.

Management

The station Superintendent is responsible for the initiation of all aspects of daily operation at DES. He maintains schedules for seasonal work such as crop harvest or building maintenance. The farm crew leader is responsible for delegating specific jobs for employees to complete these tasks. The Superintendent also coordinates with project leaders to implement research protocols and supervises the daily operations of these protocols. Research assistants are responsible for actually collecting and recording data required by these respective protocols. The research assistants are also responsible for the performance of herd health and reproduction tasks and for the record keeping of these operations under the supervision of the Superintendent. Compliance with safety regulations and the overall security of the station are also responsibilities of the Superintendent.

Training sessions and orientation for DES employees are coordinated by the Superintendent. The TAES safety officer conducts safety-training seminars. Extension specialists assist in special certification programs for employees such as pesticide handling. Personnel within the Institute of Agriculture from these respective areas conduct employee orientation concerning issues such as insurance and retirement.

Special Programs

As I stated before, our research program over the past ten years has been concentrated in the abatement of mastitis in dairy cattle. Efforts have been made to develop new vaccines, test new antibiotics, and pre and post milking disinfectants. Genetic resistance is being studied as well as avenues of exploiting this resistance. Management techniques have been researched extensively. Research will continue in all these areas however, other areas of concern are beginning to be explored at DES. We are currently testing manure solid separation techniques in an effort to decrease the need to apply as much waste to farmland thereby reducing the risk of water contamination of ground water and or running water. We are also investigating the movement of pathogens such as salmonella in the environment as they relate to food safety and water contamination. DES is also involved in a national effort to test for and the eradication of Johnes disease in cattle. All these research efforts are directly related to issues that greatly impact dairy producers and the public at large. In the future as new questions and new issues of concern arise, research efforts at DES will in all likelihood evolve to address these as well.
References

Whately, Thomas J. 1994, A History of the Agricultural Experiment Station, University of Tennessee Agricultural Experiment Station, Knoxville

Owen, John R. 1987, Management of the Dairy Experiment Station- an Update, University of Tennessee Agricultural Experiment Station, Knoxville


Robbins, Dr. Kelly 2001, Department Head of Animal Science Department. [interview] November 28.


Institutional Animal Care and Use Guidebook, U.S. Department of Health and Human Resources, Publication No. 92-3415


Appendix 1

1. Act of Congress establishing Dairy Experiment Station
2. Public Acts of the State of Tennessee establishing Dairy Experiment Station
and the other participating carriers. Joint rail and water rates as herein used shall be deemed to include every movement of traffic in which a water line can participate.

(f) The operation of the transportation and terminal facilities under this Act shall be subject to the provisions of the Interstate Commerce Act, as amended, and to the provisions of the Shipping Act, 1916, as amended, in the same manner and to the same extent as if such facilities were privately owned and operated; and all vessels of the corporation operated and employed solely as merchant vessels shall be subject to all laws, regulations, and liabilities governing merchant vessels.

Sec. 3. The Secretary of War is authorized and directed to cause an investigation and survey to be made of the inland water route from Boston, Massachusetts, to Beaufort, North Carolina, with a view to determining the amount of actual or potential commerce thereon and the feasibility and advisability of extending the service of the Inland Waterways Corporation to the waterways included in such route, or any section thereof, and to report thereon to the Congress as soon as practicable.

Approved, May 29, 1928.

CHAP. 662.—An Act Authorizing and directing the Secretary of Agriculture to establish and maintain a dairy and livestock experiment and demonstration station for the South at or near Lewisburg, Tennessee.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of Agriculture is authorized and directed to establish at or near Lewisburg, Tennessee, a dairying station for investigations, experiments, and demonstrations in the dairy industry, and the problems pertaining to the development of such industry in the South, and for investigations, demonstrations, assistance, and service in dairy, livestock breeding, growing, and feeding, and dairy products manufacture.

Sec. 2. That there is hereby authorized to be appropriated, out of any money in the Treasury not otherwise appropriated, the sum of $50,000, to carry out the provisions of this Act, including the construction of buildings, the equipment of equipment and apparatus, the purchase of livestock, and the employment of necessary persons; and each fiscal year thereafter necessary appropriations for the maintenance of said station as contemplated by this Act: Provided, That suitable lands are furnished by the State or other interests.

Approved, May 29, 1928.

CHAP. 663.—An Act Authorizing the Baltimore Gas Engineering Corporation, a Maryland corporation, its successors and assigns, to construct, maintain, and operate a bridge across the Kanawha River at or near Dunbar, West Virginia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in order to promote interstate commerce, improve the postal service, and provide for military and other purposes, the Baltimore Gas Engineering Corporation, its successors and assigns, be, and is hereby, authorized to construct, maintain, and operate a bridge and approach thereto across the Kanawha River, at a point suitable to the interests of navigation, at or near Dunbar, West Virginia, in accordance with the provisions of the Act entitled "An Act to reg-
PUBLIC ACTS OF THE STATE OF TENNESSEE PASSED BY THE
SIXTY-SIXTH GENERAL ASSEMBLY, 1929

Specifically those relating to the establishment of the Dairy
Experiment Station, Lewisburg, Tennessee. (In Marshall County)

Senator representing Marshall and Lincoln Counties:

Name: J. B. Parks Address: Fayetteville, Tn. (Lincoln Co.)
Place of Birth: Franklin County Occupation: Lawyer
Age: 59; Married; Democrat; Methodist

Representative representing Marshall County:

Name: J. Mack Robbins Address: Lewisburg, Tn. (Marshall Co.)
Place of Birth: Giles County Occupation: Civil Engineer
Age: 55; Married: Democrat; Presbyterian, K.P.
WHEREAS, an Act of Congress was approved May 29, 1928, H.R. No. 13447, providing for establishing and maintaining a regional dairy experiment station for the South, at or near Lewisburg in Marshall County, Tennessee; and,

WHEREAS, said Act of Congress provides "That there is hereby authorized to be appropriated out of any money in the Treasury not otherwise appropriated, the sum of $50,000.00, to carry out the provisions of this Act, including the construction of buildings, the acquirement of equipment and apparatus, the purchase of livestock, and the employment of necessary persons; and each fiscal year thereafter necessary appropriations for the maintenance of said station as contemplated by this Act; provided, that suitable lands are furnished by the State or other interests." Now therefore:

AN ACT to assent to the provisions of an Act of Congress relative to the purchase of a farm for regional dairy experimental purposes and to appropriate money for the purchase of said farm, at or near Lewisburg, in Marshall County.

SECTION 1. Be it enacted by the General Assembly of the State of Tennessee, That the State of Tennessee assents to the Act of Congress approved May 29, 1928 entitled "A Bill authorizing and directing the Secretary of Agriculture to establish and maintain a dairy and livestock experiment and demonstration station for the South at or near Lewisburg, Tennessee;" and hereby authorizes the purchase of a farm such as may be required by the Secretary of Agriculture of the United States under the provisions of said Act.

SEC. 2. Be it further enacted, That Fifty Thousand ($50,000.00) Dollars, or as much thereof as may be necessary, is hereby appropriated to purchase a farm to be conveyed to the United States Government for the purpose expressed in said Act of Congress.

SEC. 3. Be it further enacted, That the Comptroller of the Treasury shall issue his warrant for the purchase price of said farm when the title thereto is properly certified to and the same is properly accepted by the Secretary of Agriculture of the United States.

SEC. 4. Be it further enacted, That this Act take effect from and after its passage, the public welfare requiring it.
Passed February 8, 1929.

CHAS. H. LOVE,
Speaker of the House of Representatives.

S. R. BRATTON,
Speaker of the Senate.

Approved February 8, 1929.

HENRY H. HORTON,
Governor.

TENNESSEE PUBLIC ACTS, 1929, CHAPTER 18
Senate Bill No. 476 (By Mr. Parks)

WHEREAS, By act of Congress, H.R. No. 1,13447, approved May, 1928, the Department of Agriculture of the United States was authorized to establish and maintain a Federal Dairy Experiment Station for the South at, or near, Lewisburg, in Marshall County, provided the State should furnish a suitable farm for said Station; and

WHEREAS, By Chapter 4, Public Acts of Tennessee 1929, approved Feb. 8, 1929, the General Assembly authorized the purchase of such a farm and appropriated $50,000.00 to be applied in payment therefor; and

WHEREAS, The Secretary of Agriculture of the United States, in pursuance of both of said Acts, has selected the R. L. Brown farm and a part of the R. L. Richardson farm in conformity with said Act of Congress, for said Dairy Experiment Station; Now, therefore,

AN ACT to authorize the acceptance of by the United States Government, of the R. L. Brown farm and a part of the R. L. Richardson farm as a donation from the State of Tennessee in fee for a Federal Dairy Experiment Station for the South; and to authorize the selection and conveyance of said lands for the aforesaid purpose pursuant to an Act of Congress, H.R. No. 13447, approved May 29, 1928, and Chapter 4 Public Acts of Tennessee, approved February 8, 1929.
SECTION 1. Be it enacted by the General Assembly of the State of Tennessee, That the lands selected and designated by the duly authorized officials of the United States Government, near Lewisburg, in Marshall County for a Federal Dairy Experiment Station for the South, be, and the same are hereby approved by the State of Tennessee for said Dairy Station, said farm being composed of two adjacent tracts, lying and being in the third (old 15th) Civil District of Marshall County, Tennessee, and specifically described as follows:

FIRST TRACT--Being the R. L. Brown tract of land, situated in the 3rd Civil District of Marshall County, about two and one half miles south of Lewisburg on Highway No. 51, beginning at a point in the middle of said Highway, Tom Moore's corner; thence with Moore's line S 86 E 15 chains 57 links to a stone in McAteer's line; thence with his W B line N 2 E 30 chains to Corbin's S B line; N 84½ W passing Wheatley's corner in all, 30 chains to a stake on East side of Rock Creek, Wheatley's corner; thence with his line S 3 W crossing said creek, in all 10 chains 25 links to a stake on South bank of branch; thence N 86 W 2 chains 25 links to a stake; thence N 3½ E 3 chains 5 links to a stake; thence N 86 W, passing Collins' corner and with his line, in all 44 chains 25 links to a stake in Adams' E B line; thence with said line S 5½ W 10 chains 25 links to a stake, Richardson's corner; thence with his N B line S 86 E 23 chains 50 links to east line of L & N R R Co's property; thence with said line S 4 E 57 chains 45 links to a point in said line; thence leaving the railroad N 51½ E 3 chains 35 links to a point in wire fence; thence with said fence N 38 E 2 chains; N 18 E 5 chains 65 links to a walnut in said fence; thence N 41 E 3 chains 75 links to an elm; thence N 24 E 91 links to a hackberry; N 15½ E 38 links to a post in fence; thence S 89 E 14 chains 95 links to a stake, Moore's corner; thence N 2 3/4 E 10 chains 25 links to a stake; thence S 62 E 9 chains 30 links to a point in the middle of said highway; thence with the middle of same N 5 E 19 chains to the beginning, containing 268 acres, including the north part of railroad running through said tract of land and excluding 1.65 acres for said railroad.

SECOND TRACT--Being the R. L. Richardson tract of land and being 188.2 acres of the Hays, or Davis tract of land and 25 acres of the old Fox and Fowler tracts, and BEGINNING at a stake on top of hill, Brown's corner; thence with Brown's line S 5½ W 14 chains 60 links to a stake in the north bank of a branch; thence S 73½ W 4 chains 22 links to a stake on north bank of same; thence S 71 W 2 chains to a stake; thence S 5½ W 24 chains 50 links to a set stone; thence S 2 W 20 chains 50 links to a stake on branch; thence S 78½ E 5 chains 50 links to a pile of stone; thence S 39 E 2 chains 77 links, thence N 54 3/4 E 16 chains 50 links; thence N ½ E 2 chains to a point in creek; thence with same N 54 3/4 E 50 links to a point in creek; thence with same N 54 3/4 E 50 links to a point in said branch; thence S ½ W 2 chains to a large rock; thence S 85½ E 8 chains 7 links to a stake; thence S 83½ E 8 chains 45 links to east line of L & N R R Company's property; thence with said east line N 3½ E 9 chains 57 links to a point in said east line; thence with same N 4 W 58 chains 15 links to Brown's corner;
thence with his line N 86 W crossing said railroad in all 23 chains 50 links to the beginning, containing 213.2 acres, and excluding 11.8 acres for the railroad company's making this tract to contain 201.4 acres, containing in the aggregate 481.2 acres, not excluding the railroad.

SEC. 2. Be it further enacted, That the Government of the United States is duly authorized to accept said lands in fee simple by warranty deed of conveyance direct from the record owners thereof, as a donation from the State of Tennessee, in contemplation of the aforesaid Act of Congress; and the record owners of said lands are duly authorized to sell, transfer and convey said lands to the Government of the United States, on account of the State of Tennessee and to receive from the State the consideration therefor, as provided in the aforesaid Chapter 4, Public Acts of Tennessee, 1929.

SEC. 3. Be it further enacted. That this Act take effect from and after its passage, the public welfare requiring it.

Passed February 21, 1929.

S. R. BRATTON,
Speaker of the Senate.

CHAS. H. LOVE
Speaker of the House of Representatives.

Approved February 21, 1929

HENRY H. HORTON
Governor.
Appendix 2

1. Contract with Dairy Farmer's of America
2. Grade A Milking Permit
3. Farm Inspection Report
THIS AGREEMENT ("Agreement") is entered into between Dairy Farmers of America, Inc. ("DFA"), and the undersigned producer of milk ("Member"). In consideration of the performance of the obligations of the parties to each other and the rights and obligations between producers signing similar agreements, it is mutually agreed:

1. Member Responsibilities.
   a. Member is engaged in the production of milk and agrees to produce Grade A milk of the quality set forth herein and agrees to deliver to DFA all milk so produced under Member’s control and not used for home consumption by Member.
   b. Member agrees to deliver pure and unadulterated milk of the highest quality that meets the quality conditions and standards specified by DFA and the applicable federal, state and local regulations or ordinances. If Member has knowledge that Member’s milk fails to meet such quality conditions and standards, Member must immediately notify DFA of such failure and Member must not deliver such milk or permit it to be commingled with milk produced by other members. Upon receipt of such notification by Member, DFA will use reasonable efforts to assist the Member in selling or disposing of the milk in a lawful manner, provided that the Member assumes all risks and is solely responsible for all loss or damage as a result of Member’s milk not meeting such quality conditions and standards.
   c. Member is undertaking the production of milk in the form of a sole proprietorship, partnership, corporation, joint venture or other recognized form of business. Member has designated a form of business on the Business and Voting Member Designation Form attached as Exhibit “A” ("Designation Form"). Should Member change the form of business under which the production of milk has occurred, then Member will remain bound to perform all of Member’s obligations under this Agreement and this Agreement will not terminate and will be valid and enforceable against Member’s new or changed form of business.
   d. Member agrees to abide by and observe the rules, regulations, policies and Bylaws of DFA which are incorporated into this Agreement by reference. Member agrees that the rules, regulations, policies and Bylaws of DFA supersede and control over any conflicting provisions stated, or implied, in this Agreement.
   e. Member agrees that written notices of allocation, capital retainer, capital accounts, capital account balances, and patronage are not subject to realization or anticipation and cannot be pledged, made the subject of a security interest of any kind or otherwise encumbered, transferred or assigned to anyone other than DFA, its subsidiaries and other entities controlled by DFA, or otherwise disposed of by the Member or holder. Member agrees that DFA, its subsidiaries and other entities controlled by DFA have the right of offset against the allocation, capital retainer, capital accounts, capital account balances and patronage for all obligations owed by Member to DFA, its subsidiaries or other entities controlled by DFA.

2. DFA Responsibilities.
   a. DFA agrees to market all milk received by it from Member in a form and manner as DFA deems best for the advantage and benefit of all members. DFA is authorized to adopt or enter into any marketing plan or plans for pooling of milk or products, or proceeds from the sale of milk or products. DFA is authorized to blend the proceeds of Member’s milk with the proceeds derived from milk delivered by other members.
   b. DFA will not be a purchaser of Member’s milk and is not taking title to the milk unless the milk is delivered to a DFA controlled or owned processing facility.
   c. DFA is authorized to perform all services in connection with the hauling, handling and all other aspects of marketing Member’s milk including the right to commingle Member’s milk with other member’s milk.

3. Distribution of Marketing Proceeds.
   a. Member grants DFA full power and authority in its name to collect all moneys due the member from the sale of Member’s milk. DFA will first pay, or make provisions for the payment of all ordinary and necessary expenses incurred in the marketing of Member’s milk including, but not limited to, the cost of manufacturing, processing, preparing for market, handling, hauling, associated research, advertising and distribution, service of debt and payment to third-party creditors, and any other deductions authorized by law, its rules, regulations, policies or Bylaws.
   b. DFA will allocate net earnings and may allocate net losses upon the basis of patronage pursuant to its Bylaws.
   c. DFA may retain, as equity capital, proceeds received from the sale of milk or products produced by Member as provided in its Bylaws.
4. Hauling. Member authorizes DFA to transport Member's milk or have Member's milk transported by a carrier approved by DFA to the destinations directed by DFA.

Breach. If Member breaches or threatens to breach the terms of this Agreement, then DFA is entitled to exercise all remedies at law or equity to which DFA is entitled, including those remedies contained in its Bylaws.

6. Controlling Agreement. This Agreement supersedes any membership and marketing agreement previously in effect between Member and DFA. Any reference in this Agreement to the rules, regulations, policies or Bylaws of DFA also includes all future amendments to those documents.

7. No Assignment. Member can not assign or transfer any right, title, interest or obligation arising out of this Agreement for any purpose without the prior written consent of DFA.

8. Duration and Termination. Unless otherwise terminated as provided by the Bylaws of DFA, this Agreement will continue in full force and effect for a term of one (1) year from the date of the first shipment of Member's milk to DFA ("anniversary date"), and will be automatically extended from year to year thereafter. However, this Agreement may be terminated by either party giving written notice to the other party at least thirty (30) days and not more than sixty (60) days before the anniversary date and the termination will be effective on the anniversary date.

9. Modifications. This Agreement can not be amended except by a written instrument signed by Member and DFA. Any modifications or changes required to be made to the Designation Form is the sole responsibility of Member (or heirs of Member in the event Member is deceased) and any such requested modifications or changes to the Designation Form will be effective upon the approval of the Area Council of DFA where Member is located.

MEMBER:

Read, considered and signed this 28 day of February, 1998.

Membership Name: University of Tennessee Dairy Experiment Station

☑ By: Henry H. Dowlen
   Title: Superintendent

Address: 1070 New Lake Road

City, County: Lewisburg, Marshall County

Township, State, Zip: Lewisburg, TN 37091

Social Security or

Federal Tax I.D. No.: 62-6001636

Telephone No.: (931) 270-2240

☑ Witness: James Stephen Evans

FOR OFFICE USE ONLY:

Date Board Approved: 

Authorized Signature: 
   Title: 

Membership Number: 
   Anniversary Date: 

District Number: 
   County: 
   Township: 

Field Representative: 

CONTRACT ANNIVERSARY DATE
   FIRST PICK-UP

DFA77B

3/03/98
DAIRY FARM GRADE 'A' MILK PERMIT
STATE OF TENNESSEE
DEPARTMENT OF AGRICULTURE
QUALITY & STANDARD DIVISION
NASHVILLE, TN. 37204

Issued To: U T EXP STATION
1070 NEW LAKE ROAD
LEWISBURG, TN 37091

The above entity is authorized to conduct business within the State of Tennessee conditioned on the faithful observance of the Laws, Rules, and Regulations governing such.

As Required by: TCA 53-3-104
Date Issued: 03/27/95
Type: NEW

Post Conspicuously

07040

Commissioner
GRADE A DAIRY FARM INSPECTION REPORT

Tennessee Department of Agriculture, Ellington Agricultural Center
Box 40627, Nashville, Tennessee 37204 (615) 837-5155

U. S. EXP. STATION

NEW LACIE RD. LEWISBURG

J. S. 5 0 02

County

permit No.

Inspection of your farm today showed violations existing in the items checked below. You are further notified that this inspection sheet serves as notification of the intent to suspend your permit if the violations noted are not in compliance at the time of the next inspection. (See Sections 3 and 5 of the Grade A Pasteurized Milk Ordinance—Recommendations of the U.S. Public Health Service Food and Drug Administration.

COWS
1. Abnormal Milk:
   - (a) Cows secreting abnormal milk milked last or in separate equipment
   - (b) Abnormal milk properly handled and disposed of
   - (c) Proper care of abnormal milk handling equipment

MILKING BARN, STABLE OR PARLOR
2. Construction:
   - (a) Floors, gutters, and food troughs of concrete or equally impervious materials, in good repair
   - (b) Walls and ceilings smooth, painted or finished adequately, in good repair, ceiling dust-light
   - (c) Separate stalls or pens for horses, calves, and bulls. No overcrowding
   - (d) Adequate natural and/or artificial light, well distributed
   - (e) Properly ventilated

CLEANLINESS:
   - (a) Clean and free of litter
   - (b) No swine or fowl

4. Cowyard:
   - (a) Graded to drain, no pooled water or wastes
   - (b) Cowyard clean, cattle housing area and manure pads properly maintained
   - (c) No swine
   - (d) Manure stored inaccessible to cows

MILKHOUSE OR ROOM
5. Construction and Facilities:
   - (a) Smooth concrete or other impervious material, in good repair
   - (b) Graded to drain
   - (c) Drains trapped, if connected to sanitary system

Walls and Ceilings:
   - (a) Approved material and finish
   - (b) Good repair (windows, doors, and hoseport included)

Lighting and Ventilation:
   - (a) Adequate natural and/or artificial light, properly distributed
   - (b) Adequate ventilation
   - (c) Doors and windows closed during dusty weather
   - (d) Vents and lighting fixtures properly installed

Miscellaneous Requirements:
   - (a) Used for milkhouse operations only: sufficient size
   - (b) No direct opening into living quarters or barn, except as permitted by Ordinance
   - (c) Liquid wastes properly disposed of
   - (d) Proper hosing of where required
   - (e) Suitable shelter for transport truck as required by this Ordinance

Cleaning Facilities:
   - (a) Two-compartment wash and rinse vat of adequate size (See Ordinance)
   - (b) Suitable water heating facilities
   - (c) Water under pressure piped to milkhouse

TOILET AND WATER SUPPLY
7. Toilet:
   - (a) Provided; conveniently located
   - (b) Constructed and operated according to Ordinance
   - (c) No evidence of human wastes about premises
   - (d) Toilet room in compliance with Ordinance

WATER SUPPLY:
   - (a) Constructed and operated according to Ordinance
   - (b) Complies with bacteriological standards
   - (c) No connection between safe and unsafe supplies; no improper submerged inlets

UTENSILS AND EQUIPMENT
9. Construction:
   - (a) Smooth, impervious, nonabsorbent, safe materials; easily cleanable; seamless hooded pails
   - (b) In good repair, accessible for inspection
   - (c) Approved single-service articles, not reused
   - (d) Utensils and equipment of proper design
   - (e) Approved CIP milk pipeline system

CLEANING:
10. Cleaning:
   - (a) Utensils and equipment clean

SANITATION:
11. Sanitation:
   - (a) All multi-use containers and equipment subjected to approved sanitization process (See Ordinance)

STORAGE:
12. Storage:
   - (a) All multi-use containers and equipment properly stored
   - (b) Stored to assure complete drainage, where applicable
   - (c) Single-service articles properly stored

MILKING
13. Flanks, Udders, and Teats:
   - (a) Milking done in barn, stable, or parlor
   - (b) Brushing completed before milking begun
   - (c) Flanks, bellies, udders, and tails of cows clean at time of milking, clipped when required
   - (d) Teats treated with sanitizing solution and dried just prior to milking
   - (e) No wet hand milking

TRANSFER AND PROTECTION OF MILK
14. Protection From Contamination:
   - (a) No overcrowding
   - (b) Product and CIP circuits separated
   - (c) Improperly handled milk discarded
   - (d) Immediate removal of milk
   - (e) Milk and equipment properly protected
   - (f) Sanitized milk surfaces not exposed to contamination
   - (g) Air pressure of proper quality

DRUGS AND CHEMICAL CONTROL
   - (a) Cleaners and sanitizers properly identified
   - (b) Drug administration equipment properly handled and stored
   - (c) Drugs properly labeled (name and address) and stored
   - (d) Drugs properly labeled (directions for use, cautionary statements, active ingredient)
   - (e) Drugs properly used and stored to preclude contamination of milk

PERSONNEL
16. Hand-Washing Facilities:
   - (a) Proper hand-washing facilities convenient to milking operations
   - (b) Wash and rinse vats not used as hand-washing facilities

PERSONNEL CLEANLINESS:
   - (a) Hands washed clean and dried before milking or performing milk house functions, reviwashed when contaminated
   - (b) Clean outer garments worn

COOLING
18. Cooling:
   - (a) Milk cooled to 45 F or less within 2 hours after milking, except as permitted by Ordinance
   - (b) Recirculated cooling water from safe source and properly protected, complies with bacteriological standards

PEST CONTROL
19. Insect and Rodent Control:
   - (a) Fly breeding minimized by approved manure disposal methods (See Ordinance)
   - (b) Manure packs properly maintained
   - (c) All milkhouse openings effectively screened or otherwise protected; doors tight and self-closing; screen doors open outward
   - (d) Milkhouse free of insects and rodents
   - (e) Approved pesticides; used properly
   - (f) Equipment and utensils not exposed to pesticide contamination
   - (g) Surroundings neat and clean, free of harborage and breeding areas
   - (h) Feed storage not attraction for birds, rodents or insects

Remarks:

Date: ___________________ Sanitarian: ___________________

Note: Item numbers correspond to required sanitation items for Grade A raw milk. See paragraph 1 in the Grade A Pasteurized Milk Ordinance—Recommendations of the U.S. Public Health Service Food and Drug Administration.
ESTABLISHMENT INSPECTION REPORT OF VIOLATIONS NOTED

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>REPEAT NOTICES</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3A</td>
<td></td>
<td>Units missing in waste manifolds. After filling with water, not cleaned after use. Discussed with management. Cleaning of waste glucose scum, and routing of wash water line in different direction.</td>
</tr>
</tbody>
</table>

 henry douglas

INSPECTED BY: Ed Mard
RECEIVED BY: |
DATE: 10-18-01
TITLE: |

Items cited identify violations of State Statute which must be corrected by the next routine inspection or such shorter period of time as may be specified by the regulating authority. Failure to comply with any time limits for corrections specified in this report may result in cessation of your operations, and/or civil penalties. TCA 53-1-103; 53-8-217; 4-3-204.

THE MOST CURRENT INSPECTION REPORT MUST BE KEPT AVAILABLE AT THE FACILITY FOR PUBLIC DISCLOSURE TO ANY PERSON WHO REQUESTS TO REVIEW IT.

AG-0252 (Rev. 12/97)
Appendix 3

1. Institutional Animal Care and Use Committee (IACUC) Functions
2. Federal Guidelines for IACUC
3. Research Protocol IACUC Approval Form
I. OBJECTIVES

1. To gain an appreciation for laboratory Animals, their uses, care and numbers
2. To learn about medical advances dependent on lab animals
3. To learn about laws and regulations involving lab animals
4. To learn about the function of the IACUC

II. Good science, the public interest, and government regulations all require the best possible care for lab animals. The use of lab Animals for research or teaching at UT is a privilege and not a right.

III. Did you know:

A. That to do anything with animals for teaching and research at UT requires that a protocol or work plan be reviewed and approved. If you ask me to show you how to vaccinate your dog, I can't, using a UT owned animal.

B. That the exact number of animals I use in class must be specified. I can't decide at the last minute that six is better than five.

C. That no detail in a protocol may be changed without approval. I can't decide to use something else than lidocaine for injection.

D. That you don't usually research a disease by causing a disease. Things get to complicated.

E. That any research or teaching activity using animals can be stopped at anytime due to animal welfare concerns.

F. That expense cannot be used to justify part of animal care or use.

G. That detailed records must be kept on all animal use activities. Each time a vet student palpates a mare at the farm, It must be recorded in that mares individual record.

H. That 95% of research animals are rodents and the number used annually is decreasing.

IV. The importance of animal research (see handout)

A. Benefits of animal research to humans can be shown with expansion of human life span from 45 to 70+ years since the turn of the century. Animal health and well-being has been improved with animal research. Examples at UT include:

   a) leukotoxoid research
   b) hepatic laceration

V. Care guidelines and regulations for animals used in teaching and research come from various bodies.
1. The Animal Welfare Act of 1966 and its various amendments have more and more narrowly defined the care and well-being of these animals. This act does not cover birds, rats, mice or farm animals used in production research. Regulation exist that deal with:

- personnel qualifications and training
- attending veterinarians
- record keeping
- annual reporting
- Specifications for housing, bedding, feed, exercise and environmental enrichment. The animal welfare act also calls for the establishment of the institutional animal care and use committee (IACUC). Regular unannounced inspection by Federal vets, occur.

2. The office of Protection from Research Risks of the Public Health Service adds regulation to institutions that receive federal funding for animal uses. Their regulations are contained in a book called "the guide to the care and use of laboratory animals. Annual reports are required.

3. AAALAC (American Association for the Accreditation of Laboratory Animal Care) is a voluntary accrediting body. Accreditation requires a several day site visit with review of program and facilities.

VI. The IACUC must have 5 members one of whom is a veterinarian and one who represents the community at large.

A. The functions of the IACUC include:

- Semi-annual inspections of facilities
- Semi-annual review of the written animal care program of each facility
- Review and modification or approval or rejection of proposed animal activities as it relates to animal care and use
- Investigate concerns regarding animal care and use. Suspending animal use activities where necessary

B. The three R's for Animal Subject protocol review

- Replacement
  - tissue culture
  - cadaver parts
  - non-invasive methods
  - computer simulation
  - cold blooded animals
  - less sentient animals
- Reduction
  - using fewer
using organs and tissues
using clinical cases

- Refinement
  reducing surgeries
  using analgesics
  earlier end points than sickness or death
  training rather than restraint
  better training for workers
  better environment for animals
| **Table 2**  
<table>
<thead>
<tr>
<th>Federal Criteria for Granting IACUC Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activities</strong></td>
</tr>
<tr>
<td><strong>Pain/Distress</strong></td>
</tr>
<tr>
<td><strong>Surgery</strong></td>
</tr>
<tr>
<td><strong>Euthanasia</strong></td>
</tr>
<tr>
<td><strong>Housing/Health</strong></td>
</tr>
<tr>
<td><strong>Alternatives</strong></td>
</tr>
<tr>
<td><strong>Rationale and Methods</strong></td>
</tr>
<tr>
<td><strong>Duplication</strong></td>
</tr>
<tr>
<td><strong>Qualifications</strong></td>
</tr>
<tr>
<td><strong>Deviations from Requirements</strong></td>
</tr>
</tbody>
</table>
GENERAL INFORMATION SUMMARY ON RESEARCH/TEACHING PROTOCOLS
IN VolING ANIMALS USED OR INTENDED FOR USE AS FOOD OR FIBER

Principal Investigator/Instructor: Dr. Stephen P. Oliver

Campus Mailing Address: 59 McCord Hall

Campus Phone: 4-7260 College CASNR Department Animal Science

Check one: ☐ Research ☒ Teaching

Title of Project/Course:
Efficacy of Extended Ceftiofur Therapy for Treatment of Experimentally-Induced Streptococcus uberis Intramammary Infections in Lactating Dairy Cattle.

Funding Source/Agency: Hatch Account/Project No.: TN 159-DES 37

This is a ☒ New ☐ Continuation ☐ Supplemental application. If this is a continuation or supplement of a previously approved project/course, please indicate the project/course number and title of the previous application:

Location: Dairy Experiment Station

Anticipated Start date: End date: 2002

Species Approximate Distress/Discomfort/Pain
Bovine (Lactating cows) 46 20 C - Hypo infection

Signatures and Approvals

Having reviewed the aforementioned materials, I concur that this protocol involves farm animals used or intended for use as food or fiber in research or teaching related activities. The appropriate category of animal distress, discomfort or pain*, has been assigned according to my determination based upon procedures commonly used in experimental animals.

Department Head Date 9-25-01

Protocols assigned a category C, D or E of animal discomfort, disease or pain* must be reviewed and approved by a veterinarian trained in food animal medicine.

Veterinarian Date 9-26-01

Appendix 4

1. University of Tennessee Board of Trustees
2. Institute of Agriculture Administration Flow Chart
Board of Trustees
2001 - 2002

BOARD OF TRUSTEES

The Honorable Don Sundquist, Chairman
Governor of Tennessee
State Capitol
Nashville, Tennessee 37219

As Tennessee's 47th governor, Governor Sundquist serves ex officio as Chairman of the Board of Trustees. He was inaugurated as Governor in 1995 and again in 1999 following election for a second term through December 31, 2002.

Ms. Johnnie D. Amonette, Vice Chair
665 South Willett
Memphis, Tennessee 38104-4932

District/County: Ninth District
Initial Appointment: 1995
Term Expires: 2001

Committees/Councils: The Vice Chair of the Board is an ex officio member of all standing committees and councils.
Ms. Amonette carries out extensive volunteer activities for the Memphis and Shelby County Medical Alliance, the Tennessee Medical Association Alliance, and the American Medical Association Alliance Board.

Ms. Barbara C. Castleman
1167 Shady Grove Road
Martin, Tennessee 38237-8109

District/County: Weakley County
Initial Appointment: 1996
Term Expires: 2002
Committees/Councils: Academic Programs and Planning Committee; UT Martin Liaison Committee (Vice Chair)
1s. Castleman, a UT Martin graduate, is a businesswoman and substitute teacher.

Mr. B.C. "Scooter" Clippard
2315 Abbott Martin Road
Nashville, Tennessee 37215

District/County: Fifth District
Initial Appointment: 1998
Term Expires: 2003
Committees/Councils: Academic Programs and Planning Committee; Advancement and Outreach Council (Vice Chair)
Mr. Clippard, a graduate of The University of Tennessee, is President and CEO of Ayers Development Company, LLC, a newly-formed company designed to spearhead the development of FirstBank locations.

Mr. Charles E. Coffey
3732 Maloney Road
Knoxville, Tennessee 37920

District/County: Fourth District
Initial Appointment: 1996
Term Expires: 2002
Committees/Councils: Executive Committee; Academic Programs and Planning Committee (Chair); Faculty and Student Council
Mr. Coffey, a graduate of The University of Tennessee, is Chairman and Chief Executive Officer of Nationwide Express Inc. of Shelbyville.

Mr. J. Steven Ennis
Coca Cola Bottling Works of Tullahoma, Inc.
Post Office Box 1750
Tullahoma, Tennessee 37388

District/County: Anderson, Bedford, Coffee, Franklin, Lincoln, Moore, and Warren
Initial Appointment: 1988
Term Expires: 2006
Committees/Councils: Finance and Administration Committee (Chair)
Mr. Ennis is President of Coca Cola Bottling Works of Tullahoma, Inc.

Mr. Emerson H. Fly, Acting President
The University of Tennessee
800 Andy Holt Tower
Knoxville, Tennessee 37996-0180

Committees/Councils: The President is an ex officio member of all standing
committees
and councils. As the Acting President of The University of Tennessee,
Mr. Fly serves as a voting, ex officio member of the Board.

Mr. James A. Haslam, II
Pilot Oil Corporation
Post Office Box 10146
Knoxville, Tennessee 37939-0146

District/County: Knox County
Initial Appointment: 1980
Term Expires: 2001
Committees/Councils: Executive Committee (Chair); Finance and Administration
Committee; Advancement and Outreach Council
Mr. Haslam, a graduate of The University of Tennessee, is founder and
Chairman of the Pilot Corporation.

Mr. Waymon Hickman
First Farmers and Merchants National Bank
P.O. Box 1148
Columbia, TN 38402

District/County: Seventh District
Initial Appointment: 2000
Term Expires: 2006
Committees/Councils: Finance and Administration Committee
Mr. Hickman, a graduate of the University of Tennessee, is Chairman, CEO, and
Director of First Farmers and Merchants National Bank and First Farmers and
Merchants
Corporation in Columbia, Tennessee.

Dr. Rhynette N. Hurd
International Paper Company
6400 Poplar Avenue
Memphis, Tennessee 38197

Initial Appointment: 2001
Committees/Councils: Academic Programs and Planning
Committee

Mr. Jerry L. Jackson
P. O. Box 807
Dyersburg, Tennessee 38025-0807

District/County: Eighth District
Initial Appointment: 1996
Term Expires: 2002
Committees/Councils: Executive Committee; Finance and Administration Committee;
Faculty and Student Council (Vice Chair); UT Martin Liaison Committee (Chair)
Mr. Jackson, a graduate of The University of Tennessee, is Director of Sales for
M.A. Hanna Rubber Compounding in Dyersburg.

**Mr. D. Lynn Johnson**  
Eastman Chemical Company  
P.O. Box 431  
Kingsport, Tennessee 37662

District/County: First District  
Initial Appointment: 1999  
Term Expires: 2005

Committees/Councils: Finance and Administration Committee;  
Advancement and Outreach Council

Mr. Johnson, a graduate of The University of Tennessee, is Vice President for  
Governmental Relations with Eastman Chemical Company.

**Mr. Frank J. Kinser**  
East Brainerd Lumber Company, Inc.  
6001 Lee Highway  
Chattanooga, Tennessee 37421

District/County: Hamilton County  
Initial Appointment: 1996  
Term Expires: 2002

Committees/Councils: Academic Programs and Planning Committee (Vice Chair);  
Faculty and Student Council; The UT Chattanooga Liaison Committee (Chair)

Mr. Kinser, a graduate of The University of Chattanooga (predecessor of UT  
Chattanooga),  
is Vice President of East Brainerd Lumber Company in Chattanooga.

**Ms. Andrea J. Loughry**  
Miller & Loughry Insurance Services, Inc.  
301 West Main  
Murfreesboro, Tennessee 37130-3547

District/County: Sixth District  
Initial Appointment: 1999  
Term Expires: 2005

Committees/Councils: Finance and Administration Committee; Advancement  
and Outreach Council; Faculty and Student Council

Ms. Loughry, a graduate of The University of Tennessee, is President of  
Miller & Loughry Insurance Services, Inc.

**Mr. R. Clayton McWhorter**  
Clayton Associates  
113 Seaboard Lane, Suite B-200  
Nashville, Tennessee 37067

District/County: Davidson County  
Initial Appointment: 1993  
Term Expires: 2005
Committees/Councils: Executive Committee; Finance and Administration Committee (Vice Chair)
Mr. McWhorter is Chairman and Chief Executive Officer of Clayton Associates.

Arnold E. Perl, Esq.
Young & Perl, P.C.
One Commerce Square
Suite 2380
Memphis, Tennessee 38103

District/County: Shelby County
Initial Appointment: 1996
Term Expires: 2002
Committees/Councils: Academic Programs and Planning Committee;
Advancement and Outreach Council (Chair)
Mr. Perl is an attorney and President of Young & Perl in Memphis.

Dr. Verbie Prevost
The University of Tennessee at Chattanooga
229-B Holt Hall
Chattanooga, Tennessee 38403

Faculty Representative
Committees/Councils: Academic Programs and Planning Committee; Advancement and Outreach Council; Faculty and Student Council; Dr. Prevost serves on the Board during 2001-2002 as a representative of the faculty in her capacity as past president of the UT Chattanooga Faculty Senate. The faculty position on the Board rotates annually among the Knoxville, Martin, Memphis, and Chattanooga campuses.

The Honorable Richard G. Rhoda
Tennessee Higher Education Commission
Parkway Towers, Suite 1900
404 James Robertson Parkway
Nashville, Tennessee 37243-0830

Committees/Councils: Academic Programs and Planning Committee
Dr. Rhoda serves as a non-voting, ex officio member of the Board in his capacity as Executive Director of the Tennessee Higher Education Commission.

Mr. William B. Sansom
H.T. Hackney Company
Post Office Box 238
Knoxville, Tennessee 37901

District/County: Second District
Initial Appointment: 1986
Term Expires: 2001
Committees/Councils: Finance and Administration Committee
Mr. Sansom is Chairman and Chief Executive Officer of H.T. Hackney Company.
Ms. Tiffany E. Smith  
216 University Center  
The University of Tennessee at Chattanooga  
Chattanooga, Tennessee 38403

Student Representative  
Committees/Councils: Academic Programs and Planning Committee; Advancement and Outreach Council; Faculty and Student Council; Ms. Smith, a student at UT Chattanooga, serves on the Board during 2001-2002 as the student representative. The student position rotates annually among the Knoxville, Martin, Memphis, and Chattanooga campuses.

The Honorable Faye Taylor  
Commissioner of Education  
6th Floor, Andrew Johnson Tower  
Nashville, Tennessee 37243

Committees/Councils: Academic Programs and Planning Committee  
Commissioner Taylor serves as a voting, ex officio member of the Board in her capacity as Commissioner of Education for the State of Tennessee.

Mr. John C. Thornton  
Chairman, Thunder Enterprises  
12 Rivervista Drive  
Chattanooga, Tennessee 37405

District/County: Third District  
Initial Appointment: 2000  
Term Expires: 2006  
Committees/Councils: Academic Programs and Planning Committee; Advancement and Outreach Council; UT Chattanooga Liaison Committee (Vice Chair)

Mr. Thornton is Chairman of Thunder Enterprises in Chattanooga, Tennessee.

The Honorable Dan Wheeler  
Commissioner of Agriculture  
Ellington Agricultural Center  
Box 40627, Melrose Station  
Nashville, Tennessee 37204

Committees/Councils: Academic Programs and Planning Committee; Advancement and Outreach Council  
Commissioner Wheeler serves as a voting, ex officio member of the Board in his capacity as Commissioner of Agriculture for the State of Tennessee.

Ms. Susan Richardson-Williams  
The Ingram Group  
610 South Gay Street
Knoxville, Tennessee 37902

District/County: Knox County
Initial Appointment: 1995
Term Expires: 2001
Committes/Councils: Executive Committee; Faculty and Student Council (Chair);
Finance and Administration Committee
Ms. Williams, a graduate of The University of Tennessee, is a principal of the Ingram
Group.

Return to the General Counsel Homepage

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Updated 8/15/2001.

http://toltec.lib.utk.edu/~gco/BOARD.html
Appendix 5

1. Institute of Agriculture Mission Statement
WORK PLAN NO. TN213-DES-2
Branch Station DES

WORK PLAN**

Tennessee Agricultural Experiment Station

Commodity Dairy Date Prepared July 31, 2000 Year of Activity 2000-2001

EXPERIMENT TITLE: Effect of experimentally induced clinical mastitis during the preovulatory period on estrous expression, fertilization and establishment of pregnancy in early lactating dairy cows

DEPARTMENT(S): Animal Science

PROJECT LEADERS: F.N. Schrick, S.P. Oliver, M.E. Hockett
Other Faculty: H. Dowlen, R. Almedia, A. Saxton
Supporting Staff: B. Gillespie, N. Rohrbach
Other: T. Towns, H. Blackmon, H. Moorehead, P. Lunn

OBJECTIVE(S): To determine if clinical mastitis prior to ovulation results in interruptions in the hypothalamo-pituitary-ovarian axis which alters expression of estrus and reduces pregnancy rates.

RESOURCES REQUESTED: 32 lactating cows 45-60 days in milk will be required from the DES calving between September and November of 2000. Experimental cows must be free of major pathogen mammary infection. Fifteen cows will be challenged with Strep. uberis and 16 cows will serve as control animals.

Date Experiment Expected to be Completed: 12/2001
Frequency of Reports from Station to Project Leader: as needed
Frequency of Reports from Project Leader to Station: as needed

APPROVALS
Co-PI: ___________________________ signature & date 7/31/00

Co-PI: ___________________________ signature & date 8/1/00

Co-PI: ___________________________ signature & date 8/1/00

Department Head: ___________________________ signature & date

Station Supt: ___________________________ signature & date

Dean: ___________________________ signature & date

XXX-Z: Where XXX refers to Project Number; Z refers to alphabetic abbreviation of Branch Station; and Z is a consecutive Experiment Number for this Project/Station. ** Cover Page

Attach one or more sheets to give all of the following pertinent to this Experiment: Design of Experiment:
(Include list of treatments, number of replications, number of animals or plot size per replication, and experimental design. Attach diagram of layout for field experiments.) Procedure and Management Outline:
For livestock - size and grade of animals to be used, feeding directions, date of initiation, management on pasture, etc. For crops - seedbed preparation, variety, date of planting, fertilization, cultivation, pest control, irrigation, harvest directions, etc. Data to be obtained; record forms to be required. Division of Responsibility: Adm. F-132

AMES DES FORS HRES KES MTES MES PES TES UTM WTES
Introduction: Mastitis has been described as the most economically imposing disease facing dairy producers in the United States, costing an estimated $2 billion annually (DeGraves and Fertow, 1993). Etherington et al. (1993) reported that 6.8% of culling was due to mastitis; however, 23.7% was due to low production and 20.6% was due to reproductive problems. Mastitis significantly decreases production and alters milk composition, but more recently mastitis has been implicated in decreasing reproductive performance. Moore et al. (1991) reported a negative correlation between clinical mastitis and reproduction due to altered interestrus intervals and decreased luteal phase length in cows with clinical mastitis caused by Gram-negative mastitis pathogens. Cullor (1990) suggested that endotoxin might induce luteolysis and influence conception and early embryonic survival by release of inflammatory mediators. Moore and O’Connor (1993) hypothesized that Gram-negative mastitis pathogens may stimulate production of prostaglandin F2α (PGF2α) which subsequently would cause luteal regression.

Does Mastitis Influence Endocrine Profiles and Follicular Development? Battaglia et al. (1997) treated ewes intravenously with endotoxin, a component of the cell wall of Gram-negative bacteria that causes an inflammatory response, and sampled hypophyseal portal blood simultaneously with jugular blood at 10 min intervals to observe GnRH, LH, cortisol and progesterone (P4). Ewes treated with endotoxin had a significantly lower GnRH pulse amplitude, lower concentrations of GnRH and LH, elevated concentrations of cortisol and P4, and a higher body temperature compared to control animals. Peter et al. (1990) reported that intravenous endotoxin administration to cycling heifers resulted in elevated cortisol concentrations and smaller follicles on day 12 of the estrous cycle. Peter et al. (1990) also observed that follicles failing to ovulate from PGF2α-induced luteal regression resulted in cysts that persisted for 7 to 21 d. Formation of follicular cysts on ovaries might be a result of cortisol suppression of the LH surge (Lopez-Diaz and Bosu, 1992). Echternkamp (1984) further documented the negative correlation of elevated cortisol to suppressed LH in cows experiencing handling stress compared to cows that had been previously acclimated.

Inflammation is known to stimulate the immune system resulting in the release of cytokines which inhibit the stimulating action of follicle stimulating hormone (FSH) on LH receptor formation in cultured rat granulosa cells and inhibit FSH-induced cAMP production (Darbon et al., 1989). Other research (McCann et al., 1997) indicates that certain cytokines normally released following endotoxin challenge block the pulsatile secretion of LH but not FSH through alterations in nitric oxide production to inhibit GnRH. Consequently, mastitis could influence reproductive function via alterations in LH and FSH activity/function, thus affecting preovulatory follicular development and/or oocyte maturation.

Does Mastitis Influence the Oocyte? Luteinizing hormone is responsible for the initiation of oocyte maturation (Wise et al., 1994). Oocyte maturation is accompanied by an expansion of the cumulus cell layer mediated by FSH and LH (Lawrence et al., 1980; Younis et al., 1989; Saeki et al., 1990; Zuelke and Brackett, 1994). Furthermore, LH has been reported to increase glucose and pyruvate oxidation and glutamine reduction in cumulus cells in order to nourish the oocyte (Zuelke and Brackett, 1993; 1994). Suppression of LH experienced by cows with mastitis may affect the ability of oocytes to mature and/or alter expansion of cumulus cells.

Another symptom often associated with clinical mastitis is an elevated body temperature. Experimentally-induced S. uberis clinical mastitis resulted in elevated body temperatures (Hockett et al., 2000). Thatcher and Hansen (1993) documented that cows exposed to heat stress experienced increased embryonic mortality. Furthermore, it has been reported that effects of hyperthermia were greatest when experienced between the onset of estrus and insemination (Putney et al., 1989) or during early embryonic development (Ealy et al., 1993). Edwards and Hansen (1996) reported that exposure of oocytes at 41°C compared to 39°C for 12 h resulted in decreased blastocyst formation (30% vs 10% for 39°C or 41°C, respectively).
A third mechanism by which mastitis may negatively affect the oocyte is a secondary response to changes in endocrine status. Suppressed LH surge (delayed ovulation) or elevation of PGF$_{2\alpha}$ (decreased P$_{4}$) may result in persistent follicles (Savio et al., 1993; Ahmad et al., 1995; Ahmad et al., 1996). Pregnancy rates were greater in animals that ovulated the first-wave dominant follicle (54%) compared to persistent follicles (14%; Ahmad et al., 1996). Ahmad et al. (1995) reported decreased recovery of embryos on day 6 postmating (70%) in cows with persistent follicles than in cows with growing follicles (90%). Furthermore, fewer embryos reached the 16-cell or morula stage of development from persistent follicles (14% and 14%, respectively) than from growing follicles (86% and 73%, respectively). Peter et al. (1989) reported that intrauterine infusion of endotoxin suppressed LH and resulted in follicles that did not ovulate. Therefore, cows with mastitis or other infections may have increased services per conception and days open due to formation of persistent follicles or follicular cysts. Oocytes from these follicles are associated with decreased fertilization or development and ultimately cause decreased pregnancy rates.

**RATIONALE & SIGNIFICANCE:** Mastitis continues to cost dairy producers in the United States at least $2 billion annually (DeGraves and Fetrow, 1993). Even cows from well managed dairy herds utilizing the most recent and most effective mastitis control measures experience a high rate of mastitis especially during the first 90 d of lactation. Mastitis has also been implicated in decreasing reproductive performance of dairy cows. Reproductive efficiency is of great concern to dairy producers because each day an animal is open over 90 d is associated with a great monetary loss. Costs between $0.50 to over $4.00 have been reported per day open over 90 d (Louca, 1968; Britt, 1974; Fetrow and Blanchard, 1987). If a medium value of $2.00 is assumed per day a cow is open over 90 d and applied to data from the study by Schrick et al. (1999), a loss of $107 per cow was observed in cows with clinical mastitis after first service, and $32 was lost in cows with clinical mastitis before first service. These losses are in addition to costs associated with mastitis such as decreased milk production, altered milk composition, treatment costs, discarded milk, increased involuntary culling rate, etc. Collectively, economic losses associated with mastitis and reduced reproductive performance are obviously significant and merit further investigation to increase understanding of mechanisms involved and appropriate treatment protocols.

Recent studies from our laboratory have shown that: (1) occurrence of mastitis before first service delayed days to first service, increased days to conception and elevated services per conception, (2) occurrence of mastitis during the breeding period increased days open and doubled the number of services per conception compared to uninfected cows, (3) reproductive performance was not affected if mastitis occurred after establishment of pregnancy, (4) both Gram-negative and Gram-positive mastitis pathogens decreased reproductive similarly, (5) subclinical and clinical mastitis equally reduced reproductive performance, and (6) experimentally-induced mastitis increased concentrations of cortisol, increased serum PGF$_{2\alpha}$, and elevated body temperature.

**PROCEDURES**

**OBJECTIVE:** To determine if clinical mastitis prior to ovulation results in interruptions in the hypothalano-pituitary-ovarian axis which alters expression of estrus and reduces pregnancy rates.

**Description of Experimental Animal Required:** Cows utilized in the proposed experiment should be between 45-60 days in either the 1-3 lactation. The proposed time for the current experiment is the late fall. Therefore, cows utilized should calve between September and early November of 2000. All cows should be free from major pathogen intramammary infection and should not have been previously used on challenge study. Cows should not have been inseminated and should be cycling at the onset of the study.
Description of Bacterial Inoculum Preparation: The *Streptococcus uberis* infection model described in this protocol was developed at The University of Tennessee, Knoxville. We have shown that intramammary inoculation of cows in early- to mid-lactation with *S. uberis* strain 888 results in clinical mastitis in a high percentage (>90%) of challenged quarters. We believe this experimental infection model will be extremely useful for conducting controlled studies on the influence of clinical mastitis on reproductive function and reproductive performance.

*Streptococcus uberis* strain 888 will be revived from storage at -80°C by thawing in a water bath at 37°C. The thawed bacterial suspension (20 μL) will be streaked onto blood agar plates and incubated overnight at 37°C. After incubation, 3 colonies will be picked using a sterile loop and inoculated into 20 mL of Todd-Hewitt broth and incubated for 6 h at 37 ± 1.0°C with 5 ± 0.5% CO₂. Following incubation, the broth culture will be diluted in sterile phosphate-buffered saline to provide an inoculum of 600 - 1000 colony forming units (CFU)/mL.

Description of Challenge Inoculum Administration: Within 0.5 h after the PM milking [*two days prior to the second injection of PGF₂α*] 5 mL of inoculum containing 3000 to 5000 CFU of *S. uberis* in sterile phosphate-buffered saline will be infused into two uninfected quarters of each cow in the CHALLENGE group (n=16; two replicates of 8). **Initiation of challenge two days prior to the second injection of PGF₂α should result in cows having clinical mastitis one day following the PGF₂α injection (approximately two days prior to estrus).** This time point will allow cortisol to reach peak values prior to the preovulatory rise in E₂ and LH as well as exposing the developing oocyte to inflammatory mediators prior to ovulation. The number of bacteria will be determined by viable plate count on blood agar before and after inoculation. The inoculum will be maintained at room temperature up to the time of inoculation. Selection of inoculum volume and total number of CFU is based on results of several previous studies when developing the *S. uberis* challenge model in early- and mid-lactating cows (Hockett et al., 2000). The bacterial suspension will be infused using sterile disposable syringes fitted with sterile disposable teat cannulas. Full insertion of the teat cannula through the streak canal will be employed. Before inoculation, teat ends will be cleaned thoroughly with swabs containing 70% ethanol. The infused inoculum will be massaged upward into the gland cistern. The teat will be immersed in a postmilking teat disinfectant when the above procedure has been completed. Following challenge, cows will be monitored closely so that if an acute infection occurs, supportive therapy can be initiated promptly.

Quarter foremilk samples for microbiological evaluation will be obtained aseptically, as described below, from all challenged cows immediately before inoculation, daily for 7 d and at day 14 and 21 by DES personnel. Cows in the untreated control (CON) group (n=16) will be sampled at the same intervals as challenged cows.

Clinical Observations: Clinical assessment of all animals will be performed by DES personnel before experimental bacterial challenge and when milk samples are collected. Clinical status of all mammary glands and appearance of milk will be evaluated by qualified farm personnel at each milking when milk samples are collected using the following scheme: 1=normal mammary gland and normal milk, 2=normal mammary gland and slight alterations in milk (a few flakes), 3=abnormal mammary gland and abnormal milk (clots, clumps, changes in milk color), and 4=swollen mammary gland, abnormal milk and systemic signs (hyperthermia, depression, dullness) of infection. Cows that develop clinical mastitis will be monitored closely and antibiotic treatment will be initiated after day 7 post-challenge. Data evaluated by Schrick et al. (1999) in comparing clinical and subclinical mastitis cows indicated similar detrimental effects of mastitis on reproductive performance. It should be noted that clinical animals analyzed in this study (Schrick et al., 1999) were treated with antibiotic therapy following onset of mastitis whereas subclinical cows were not treated. **Cows in this study should not be treated until the infected quarter**
GENERAL INFORMATION SUMMARY ON RESEARCH/TEACHING PROTOCOLS INVOLVING ANIMALS USED OR INTENDED FOR USE AS FOOD OR FIBER

Principal Investigator/Instructor: F. Neal Schrick

Campus Mailing Address: 213D Brehm Animal Science
                          Ag Sci &
Campus Phone: 4-3147 College Nat Resources Department Animal Science

Check one: X Research       Teaching

Title of Project/Course:
Effect of experimentally induced clinical mastitis during the preovulatory period on estrous expression, fertilization and establishment of pregnancy in early lactating dairy cows.

Funding Source/Agency: Hatch Account/Project No.: TN 213 -DES 2

This is a X New Continuation Supplemental application. If this is a continuation or supplement of a previously approved project/course, please indicate the project/course number and title of the previous application:

Location: Dairy Experiment Station

Anticipated Start date: __________  End date: 12/2001

<table>
<thead>
<tr>
<th>Species</th>
<th>Approximate Number</th>
<th>Distress/Discomfort/Pain* Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lactating dairy cows</td>
<td>32</td>
<td>C (Espte bacterial challenge)</td>
</tr>
</tbody>
</table>

Signatures and Approvals

Having reviewed the aforementioned materials, I concur that this protocol involves farm animals used or intended for use as food or fiber in research or teaching related activities. The appropriate category of animal distress, discomfort or pain*, has been assigned according to my determination based upon procedures commonly used in experimental animals.


Department Head  Date

Protocols assigned a category C, D or E of animal discomfort, disease or pain* must be reviewed and approved by a veterinarian trained in food animal medicine.

Veterinarian Date

Appendix 7

1. Employee Leave Forms
2. Employee Timesheet
3. Employee Compensation Forms
4. Transfer Voucher
APPLICATION FOR LEAVE
Institute of Agriculture
University of Tennessee

☐ Biweekly  ☐ Monthly

Date of Request

Employee Name

Responsible Department

Request ______ hours

Beginning: ________________ Date ________________ Hour ________________

Ending: ________________ Date ________________ Hour ________________

Requested Leave (check one):

☐ ANNUAL LEAVE

☐ SICK LEAVE

☐ PERSONAL LEAVE DAY
(Regular non-exempt employees only.)

☐ MILITARY LEAVE
(Copy of official military orders required. Please attach copy.)

☐ COURT LEAVE

☐ Extended Active Duty
(Leave of Absence Without Pay)

☐ Witness
(Copy of summons, subpoena, or notice to appear as witness required. Please attach copy.)

☐ WORKERS’ COMPENSATION LEAVE

☐ Federal

List family relationship:

---

LEAVE REQUEST SUMMARY AND APPROVAL

<table>
<thead>
<tr>
<th>Leave Category</th>
<th>Hours Requested</th>
<th>Hours Taken*</th>
<th>Available Balance**</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Employee’s Signature

Approved: ________________________ Supervisor’s Signature

*Hours taken year-to-date in current calendar year.
**After requested leave is taken.
## STATE OF TENNESSEE
GROUP INSURANCE PROGRAM ENROLLMENT/CHANGE FORM

State of Tennessee Department of Finance and Administration Division of Insurance Administration
1400 Andrew Jackson Building, Nashville, Tennessee 37243-0295   615-741-3590/1-800-253-9981   Fax: (615) 741-8196

See back for complete instructions. You must sign and date this form, even if refusing coverage. Please print clearly.

## PART 1  ENROLLMENT/CHANGE REQUEST—Check all that apply.

<table>
<thead>
<tr>
<th>ADD</th>
<th>CHANGE</th>
<th>TERMINATE/REASON</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Eligible Employee</td>
<td>Transfer Plans</td>
<td>Coverage: Self</td>
</tr>
<tr>
<td>Late Enrollee</td>
<td>Change Name</td>
<td>Coverage: Spouse</td>
</tr>
<tr>
<td>Add Spouse</td>
<td>Marital Status</td>
<td>Coverage: Child(ren)</td>
</tr>
<tr>
<td>Add Child(ren)</td>
<td>Health/Dental</td>
<td>Dental</td>
</tr>
<tr>
<td>Dental</td>
<td>Type of Coverage from</td>
<td>Optional Special</td>
</tr>
<tr>
<td>Special Enrollment Provision</td>
<td>to</td>
<td>Accident</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Health</td>
</tr>
</tbody>
</table>

Beneficiary: ____________________________

Effective: ____________________________

Date of Above Event: ____________________________

## PART 2  EMPLOYEE INFORMATION—Must be completed, even if refusing coverage.

<table>
<thead>
<tr>
<th>Social Security No.</th>
<th>Last Name</th>
<th>First Name</th>
<th>Middle Initial</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>Apt.</th>
<th>City</th>
<th>State</th>
<th>Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>County of Residence Code (see back)</th>
<th>County of Work Code (see back)</th>
<th>Male</th>
<th>Single</th>
<th>Divorced</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>

Date Hired: ___________  Birthdate: ___________  Appointment Type: ___________  Date of Change: ___________

Effective Date: ___________

Department Name: ____________________________

Budget Code: ___________

Salary: ___________ mo/yr

Is your spouse a state employee? Yes [ ] No [ ]

If yes, complete the following:

Name: ____________________________

Social Security No.: ____________________________

Department: ____________________________

## PART 3  ENROLLMENT INFORMATION

<table>
<thead>
<tr>
<th>Coverage Type</th>
<th>Optional Life</th>
<th>Dental Plan</th>
<th>Type of Dental Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

[County Codes]
PROVIDENT LIFE AND ACCIDENT INSURANCE COMPANY
CHATTANOOGA, TN 37402-1362

STATE OF TENNESSEE
OPTIMAL UNIVERSAL LIFE ENROLLMENT APPLICATION
☐ ANNUAL ENROLLMENT  ☐ NEW HIRE

EMPLOYEE - MUST ALWAYS BE COMPLETED

NAME
Please Print (first) (middle) (last)
Residence Address (street/box no.)
City State Zip
Social Security No. - -
Birthdate Date of Hire Sex
Budget Code
Employee Annual Base Salary $

CERTIFICATE INFORMATION - EMPLOYEE

Employee Coverage Amount:
Minimum: $5,000 Maximum: Five times your annual base salary.
Amounts over three times annual earnings subject to medical evidence of insurability. All amounts adjusted to the next higher multiple of $5,000 up to $300,000.

Children's Coverage: ☐ $2,500 ☐ $5,000
Coverage available on either employee or spouse certificate, but not both. However, if employee purchases coverage, children's coverage must be attached to that certificate.

Beneficiary Relationship
Address

SPouse -(Always show name - Fully Complete For Coverage)

NAME
Please Print (first) (middle) (last)
Residence Address (street/box no.)
City State Zip
Social Security No. - -
Birthdate Date of Hire Sex

Has spouse been hospitalized or unable to perform the normal duties and activities of a person of like age, which are in no way curtailed or altered within last 6 months? ☐ Yes ☐ No If yes, submit supplemental application.

CERTIFICATE INFORMATION - SPOUSE

Spouse Coverage Amount:
Minimum - All Ages: $6,000
Maximum - Less Than Age 55: $15,000 or one times employee annual base salary in multiples of $5,000 up to $30,000.
Maximum - Ages 55 and Over: $15,000

Children's Coverage: ☐ $2,500 ☐ $5,000
Coverage available on either employee or spouse certificate, but not both. However, if employee purchases coverage, children's coverage must be attached to that certificate.

Beneficiary Relationship
Address

List eligible dependent children as defined in the plan.

<table>
<thead>
<tr>
<th>Child's Name</th>
<th>Social Security Number</th>
<th>Date of Birth</th>
<th>Issue Age</th>
<th>Relationship to Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>(First)</td>
<td>(Middle)</td>
<td>(Last)</td>
<td>Mo Day Yr</td>
<td>M or F</td>
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</tr>
</tbody>
</table>

The beneficiary of children's term insurance is the employee, if living, otherwise the estate of the covered child.

I certify that the information on this form is true and complete to the best of my knowledge and that I am actively at work on the date of my signature below. I understand that the insurance I have selected for myself will begin on the certificate effective date, provided that I am actively at work on that date. If I am not actively at work on such date, coverage for myself will not go into effect until the first day of the month following my return to work, provided it is within 180 days of when coverage would have become effective. Spouse coverage, if any, will become effective on the certificate effective date, provided: (1) his/her health has not changed since the date the application was signed; and (2) he/she is not hospitalized and is able to perform normal activities on the effective date.

I understand that I am the Owner of all coverages applied for and authorize my employer to deduct the proper premiums for this insurance from my earnings.

Employee Signature ____________________________ Date ____________

FOR HOME OFFICE USE ONLY

DEDUCTION AMOUNT: E S C TD

M-95090 (Rev. 6-95)
**THE UNIVERSITY OF TENNESSEE**  
**SALARIED EMPLOYEE TIME REPORT**

**EMPLOYEE NAME**:  
**45.0**

**DEPT.**:  
**EI1-5515**

**UNIV**:  
**SR ANIMAL CARETKER**

**DESIGNATION**: **REGULAR**

**DAIRY EXP STATION**  
**1070 NEW LAKE ROAD**

**CLASS**: **FLSA**  
**NORMAL WORK WEEK**

**FOR WORK WEEKS ENDING ON FOLLOWING DATES: 09/30/01**

<table>
<thead>
<tr>
<th>NOV. 11, 01</th>
<th>NOV. 18, 01</th>
<th>NOV. 25, 01</th>
<th>DEC. 2, 01</th>
</tr>
</thead>
</table>

**LEAVE BALANCES AS OF**:  
**ANNUAL**: **362.30**  
**SICK**: **1498.40**

**MONTHLY TOTALS**

1) **REPORT ALL TIME IN HOURS AND TENTHS OF HOURS.**

2) **THIS REPORT MUST INCLUDE TIME WORKED FOR ALL UNIVERSITY DEPARTMENTS.**

3) **USE DECIMALS RATHER THAN FRACTIONS.**

4) **ACCOUNT FOR ALL HOURS IN THE EMPLOYEE'S NORMAL WORK DAY AND WORK WEEK.**

**SUMMARY OF NON-DUTY TIME FOR PERIOD COVERED BY THIS REPORT.**

<table>
<thead>
<tr>
<th>ANNUAL LEAVE</th>
<th>SICK LEAVE</th>
<th>HOLIDAY</th>
<th>ADMIN CLOSE</th>
<th>OTHER</th>
<th>TOTAL NON-DUTY</th>
</tr>
</thead>
</table>

**IF HOURS SHOWN ABOVE INCLUDE HOURS NOT COVERED BY REGULAR MONTHLY SALARY INDICATE THE UNIVERSITY UNIT OR DEPT. FOR WHICH THE ADDITIONAL SERVICES WERE PERFORMED AND HOURS EACH WEEK.**

**U.T. DEPT:**

<table>
<thead>
<tr>
<th>1ST WEEK</th>
<th>2ND WEEK</th>
<th>3RD WEEK</th>
<th>4TH WEEK</th>
<th>5TH WEEK</th>
</tr>
</thead>
</table>

**46 fry**: **A TRUE STATEMENT OF HOURS WORKED FOR THE UNIVERSITY OF TENNESSEE FOR THE WEEKS ENDING ON THE DATES LISTED ABOVE. SIGNED AND CERTIFIED TO BE CORRECT.**

**MINIMUM WAGE PAY ADJUSTMENT DUE: CHECK HERE IF EMPLOYEE'S SALARY INCLUDING MEALS AND QUARTERS, IF ANY, WHEN ADJUSTED TO A WEEKLY BASIS DOES NOT EQUAL OR EXCEED THE MINIMUM WAGE REQUIREMENT FOR EACH OF THE WEEKS REPORTED ABOVE.**

**OVERTIME PAY ADJUSTMENT DUE: CHECK HERE IF EMPLOYEE IS DUE PAY ADJUSTMENT FOR EXCESS WORK HOURS FOR ANY WEEK PER STATED UNIVERSITY POLICY.**

**SEE INSTRUCTIONS ON REVERSE SIDE OF FORM**

**APPROVED:**

**SUPERVISOR OR DEPARTMENT HEAD**

**TITLE**
UNIVERSITY OF TENNESSEE
AUTHORIZATION FOR PAY ADJUSTMENT FOR BASE-HOURS MONTHLY SALARIED EMPLOYEES

Name ____________________________ Last ______ First _______ Middle Initial

Date ____________________________

For the period from ____________________________ to ____________________________

Responsible Account Number ____________________________

Employee I.D. ____________________________ Job Class No. ____________________________

Job Class Name ____________________________

Account(s) To Be Charged

<table>
<thead>
<tr>
<th>Account No.</th>
<th>Amount</th>
<th>Earnings Type</th>
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</thead>
<tbody>
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</tbody>
</table>

EXPLANATION:

   ____________________________________________
   ____________________________________________
   ____________________________________________
   ____________________________________________
   ____________________________________________

TIME SUMMARY

(1) Week Ending
(2) Hours Worked
(3) Non-Duty Pay Hours
(4) Weekly Total
(5) Base Hours Work Week
(6) Hours Not Worked
(7) Excess Hours Over
(8) Work Hours
Weekly Base Hours Due
To non-duty pay hours
Over 40 per Week

<table>
<thead>
<tr>
<th>Week Ending</th>
<th>Hours Worked</th>
<th>Non-Duty Pay Hours</th>
<th>Weekly Total</th>
<th>Base Hours Work Week</th>
<th>Hours Not Worked</th>
<th>Excess Hours Over</th>
<th>Work Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<td>5.</td>
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</tr>
</tbody>
</table>

Comp. Hours Carried Forward
From Previous Pay Period

TOTALS

| Column (5) minus column (4) | @ Regular Rate | @ Regular Rate | @ 1-1/2 Rate |

DETERMINATION OF REGULAR HOURLY RATE FOR BASE HOUR EMPLOYEES

\[
\text{Hourly Rate} = \frac{\text{Weekly Salary} - \text{Weekly Base Hours Column 5}}{\text{Weekly Salary}}
\]

\[
\text{(Monthly Salary) + Housing + Meals} = \text{Weekly Salary} = \text{Weekly Base Hours Column 5}
\]

PAY ADJUSTMENT

Additional Pay:

(6) Excess hours at regular rate = \( \frac{\text{No. Hours}}{\text{Hourly Rate}} \)

(7) Overtime hours at 11/2 times regular rate = \( \frac{\text{No. Hours}}{1.5 \times \text{Hourly Rate}} \)

(8) Comp. hours carried forward to be paid = \( \frac{\text{No. Hours}}{\text{Hourly Rate}} \)

Pay Reduction

(9) Hours short at regular rate = \( \frac{\text{No. Hours}}{\text{Hourly Rate}} \)

TOTAL ADDITIONAL PAY

TOTAL PAY DEDUCTIONS

NET ADDITIONAL OR DEDUCTION

APPROVALS

(Department Head or Authorized Delegate)

(Dean or Director)

(Financial Officer)

(Treasurer’s Copy - White (Original)
Financial Copy - Blue
Dean’s Copy - Pink
Department Copy - Yellow

NOTES:

a. A time report must be submitted with this form.

b. If the amount represents a salary reduction, place brackets around the amount shown in the "Accounts To Be Charged"

c. Use only the following Earnings Types:
   OTP - Overtime at 1.5 Rate
   OTS - Overtime at Straight Time
   RED - Reduction

d. This form must be typed except for the TIME SUMMARY, DETERMINATION OF HOURLY RATE and PAY ADJUSTMENT sections which may be hand written in ink.
THE UNIVERSITY OF TENNESSEE
Employee Request for Course Approval and Waiver of Fees

This form is used to request approval to enroll in courses for credit in accordance with the Educational Assistance (Fee Waiver) Policy No. 330.

INSTRUCTIONS: Please complete Sections I and II and forward to your Personnel Office at least 10 days prior to registration check-in day to ensure adequate time for processing. The approved form will be returned to you.

For day courses, take this approved application to the fees' cashier during registration or to the Bursar's Office, 210 Student Services Building, after regular scheduled registration. If the course is offered through Evening School, submit this application to 451 Communications & University Extension Building.

You will be charged pro rata fees if you: 1) Do not complete the above procedure during the scheduled registration dates (late registration fee), 2) Are employed less that 100% full-time, and/or 3) Register for hours in excess of the fee waiver benefit.

I. EMPLOYEE—Please complete this section as applicable.

______________________________  ____________________________  ____________________________
Employee Name (please print)    SSN                      Campus/Office Address

______________________________  ____________________________
Department                      Respon. Acct. No.           Campus/Office Phone No.

I hereby request approval for waiver of _______ (number) hours of credit during the _______ (Sum/Fall/Wtr/Spr)

term _______ at the ___________________________ Campus.

______________________________  ____________________________
Employee Signature:           Date:

______________________________
Retired from UT ___________________________ on ___________________________ with 10 or more

years full-time ____ / part-time ____ service. If part-time provide percent of effort: ______

II. DEPARTMENT HEAD—Please complete this section. (Retirees omit this section.)

I approve this request. Satisfactory work schedule arrangements have been made to ensure that this employee will complete a full work schedule based on his/her percent full-time.

______________________________  ____________________________
Dept. Head Signature:           Date:

III. PERSONNEL DEPARTMENT—Complete this section.

______________________________    ____________________________
Regular Continuous Service Date: Job Class: Full-Time:

Approved: ____________________________ Date: __________

Rev. 6/93
THE UNIVERSITY OF TENNESSEE
PETTY CASH REIMBURSEMENT REQUEST

PAYEE: ___________________________ TITLE: Superintendent DATE: ____________

VENDOR NO. OR S.S. NO. ___________ ADDRESS: Dairy Experiment Station

DESCRIPTION: CASH ITEMS

AMOUNT TO PAY: __________________

1070 New Lake Rd.

Lewisburg, TN ZIP CODE: 37091

Reimbursement is requested for the following petty cash expenditures with itemized receipts attached in compliance with University policy.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Date of Receipt</th>
<th>Vendor</th>
<th>Item Description</th>
<th>G/L Acct.</th>
<th>Amount</th>
</tr>
</thead>
</table>

Chargeable to the following accounts:

<table>
<thead>
<tr>
<th>CostCtrWBSName</th>
<th>Cost Ctr/WBS #</th>
<th>G/L Account</th>
<th>Amount</th>
</tr>
</thead>
</table>

Dairy Experiment Station

Approved: ___________________________ Head

[Authorized signature and title]

* A vendor number will be established for all official petty cash accounts.
<table>
<thead>
<tr>
<th>Date</th>
<th>Department Credited</th>
<th>Department Charged</th>
<th>Date</th>
<th>Received:</th>
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</thead>
<tbody>
<tr>
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<td></td>
<td>Building:</td>
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<td>Room:</td>
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<td>Deliver to:</td>
</tr>
</tbody>
</table>

APPROVALS:

<table>
<thead>
<tr>
<th>Amount</th>
<th>Unit Price</th>
<th>Quantity</th>
<th>Detail Support</th>
</tr>
</thead>
</table>

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<thead>
<tr>
<th>ACCT. CREDITED</th>
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<th>ACCT. CHARGED</th>
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</table>

Fund

WBS Element

Cost Center

Text Description

GL Account

Amount

Transfer Voucher

Office of the Treasurer

The University of Tennessee
Appendix 8

1. Example of Invoice Payment Utilizing IRIS System
# Invoice

**Vendor Name**

**DATE** | **INVOICE #**
--- | ---
8/9/01 | 197

**BILL TO**
Dairy Experiment Station  
1070 New Lake Rd.  
Lewisburg, TN 37091

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>RATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>5</td>
<td>35.00</td>
<td>175.00</td>
</tr>
<tr>
<td>Mileage</td>
<td>144</td>
<td>0.65</td>
<td>93.60</td>
</tr>
<tr>
<td>Transient Protector</td>
<td>1</td>
<td>103.90</td>
<td>103.90</td>
</tr>
<tr>
<td>Fuse Strip</td>
<td>1</td>
<td>497.90</td>
<td>497.90</td>
</tr>
</tbody>
</table>

**DUE DATE**
9/8/01

**UT 2400025083**

Feed System Lightening Strike

**Total**
870.40
Appendix 9

1. Human Resource Contacts
Appendix 10

1. Sample Data Collection Form
# TN-00159-DES 36  *S. uberis* Vaccine Trial

**Site:** Dairy Experiment Station

**Injection Site Reactions and Rectal Temperatures**

<table>
<thead>
<tr>
<th>Cow ID</th>
<th>Dose</th>
<th>Time Point</th>
<th>Rectal Temp</th>
<th>Side</th>
<th>Reaction</th>
<th>Measurements* (in cm)</th>
<th>Comments</th>
<th>Intls</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

**Time Points:**

- D-1  D-0  D+1  D+2  D+3  D+4  D+7  D+14  Left
- D+27 D+28 D+29 D+30 D+31 D+32 D+35 D+42  Right
- CV-1  CV  CV+1  CV+2  CV+3  CV+4  CV+7  CV+14  Lower Left
<table>
<thead>
<tr>
<th>P4 Cows Bred</th>
<th>Number of cows in milk</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>P5 Cows in heat</td>
<td>Bred to</td>
<td>Cows Bred</td>
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<tr>
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<tr>
<td>P2 Cows turned dry</td>
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</tr>
</tbody>
</table>

P1 Cows calved, cow #, sex and calf # |
<table>
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</table>

P15 Health: Animal #, Symptom and treatment |
<table>
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<tbody>
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</table>

P3 Animals died: # and cause |
<table>
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<tbody>
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</table>

P3 Animals sold: Purchaser and price |
<table>
<thead>
<tr>
<th></th>
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<tbody>
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Weather
<table>
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<tr>
<th>Air</th>
<th>Soil</th>
<th>Signed</th>
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Precip.
**HEALTH RECORD**

<table>
<thead>
<tr>
<th>Date</th>
<th>Symptom and Treatment</th>
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</thead>
<tbody>
<tr>
<td>8-27-99</td>
<td>Edema - 10cc Lasix</td>
</tr>
<tr>
<td>8-28-99</td>
<td>Edema - 10cc Lasix</td>
</tr>
<tr>
<td>8-29-99</td>
<td>Edema - 10cc Lasix</td>
</tr>
<tr>
<td>09-18-00</td>
<td>Dry heat - Doralin + Triangle 9 IM</td>
</tr>
<tr>
<td>06-18-01</td>
<td>Foot Ret - right front - 20cc Excelen IM</td>
</tr>
<tr>
<td>06-19-01</td>
<td>Foot Ret - right front - 20cc Excelen IM</td>
</tr>
<tr>
<td>10-30-01</td>
<td>Dry heat - Doralin + Triangle 9 IM</td>
</tr>
</tbody>
</table>
*************** Milking Herd Summary ***************

15 Cows entered herd (15 Transferred from heifer herd)

25 Cows left herd:
9 Sold, low production
3 Sold, reproduction prob.
2 Sold, injury or other
1 Sold, mastitis
1 Sold, feet & leg prob.
0 Died
1 Sold, dairy
1 Sold, disease
7 Udder problems
0 Not reported

-10 Net change

86 Heats reported (not bred)
75 Total breedings:
63 1st service
4 2nd service
3 3rd service
5 4+ services

20 Cows turned dry

55 Calves born:
30 Heifers (28 H; 1 H&H; 0 H&B)
25 Bulls (21 B; 2 B&B; 0 H&B)
0 Embryo transfer

52 Calving dates:
15 Calved, 1st
36 Calved, 2+
1 Aborted
0 Induced

199 Total cows in herd on 11-28-01
164 Milking
35 Dry

************** Young-stock Herd Summary **************

28 Calves have birth dates in this test period

15 Heifers transferred to milking herd

1 Calves died:
1 Scours
0 Respiratory
0 Disease/Injury
0 Other
0 Born dead
0 24 hours

2 Heats reported (not bred)
35 Total breedings:
31 1st service
3 2nd service
1 3+ services

2 Calves sold:
1 Dairy
1 Reproduction
0 Other

169 Total in young-stock herd on 11-28-01
<table>
<thead>
<tr>
<th>Num</th>
<th>Report Title</th>
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</thead>
<tbody>
<tr>
<td>090</td>
<td>Heat Expectancy List</td>
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<tr>
<td>091</td>
<td>Concise Cow Page</td>
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<tr>
<td>092</td>
<td>Daughters of a Bull</td>
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<tr>
<td>093</td>
<td>Status/Breeding Input</td>
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<tr>
<td>094</td>
<td>Conception Rate Summary for A.I. Technicians</td>
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<td>095</td>
<td>Mates of a Bull</td>
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<td>096</td>
<td>Identity Changes and Animals Entering Herd</td>
</tr>
<tr>
<td>097</td>
<td>New Testday Milk Weights</td>
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<tr>
<td>098H</td>
<td>Heifer Management Actions</td>
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<tr>
<td>099</td>
<td>Barn Sheet</td>
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<td>100</td>
<td>Status and Breeding Summary</td>
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<tr>
<td>101H</td>
<td>Calf Management Summary</td>
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<tr>
<td>102</td>
<td>Cows to be Milking, Dry, Calving and Culled by Month</td>
</tr>
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<td>103</td>
<td>Animals Left Herd</td>
</tr>
<tr>
<td>105</td>
<td>Health Summary</td>
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<td>106</td>
<td>Conception Rate Summary (Landscape)</td>
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<td>107</td>
<td>Cow Health List</td>
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<td>Unused Index Numbers</td>
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<td>Semen Inventory List</td>
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<td>BULLFILE List</td>
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<td>Group Summary</td>
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<td>Cow Event List (Landscape)</td>
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<td>Files for Breed Association Registry</td>
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<td>Testday Status Summary</td>
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<td>Racking List for Lab</td>
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<td>MUN Analysis Summary</td>
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<td>Timed AI Program</td>
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<td>PCDART Invoice</td>
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<td>Pregnancy Rate Summary</td>
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<td>Current Herd Status</td>
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<td>Herd Activity Summary</td>
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<td>Herd Activity Summary (Entire Year)</td>
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<td>Individual Cow Page</td>
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<td>144</td>
<td>Repro Measures for Vet Practitioner</td>
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<td>145</td>
<td>Genetic, Birth, Replacement Heifer Summary</td>
</tr>
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<td>146</td>
<td>Entered/Left Herd Summary (Landscape)</td>
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<td>147</td>
<td>Yearly Herd Summary (Landscape)</td>
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<tr>
<td>148</td>
<td>Stage of Lactation and Repro Summary</td>
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<tr>
<td>149</td>
<td>Lactation Summary</td>
</tr>
<tr>
<td>801</td>
<td>Herd Summary - Reproduction</td>
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<tr>
<td>802</td>
<td>Herd Summary - Stage of Lactation and Udder Health</td>
</tr>
<tr>
<td>903</td>
<td>Herd Summary - Stage of Lactation and Production</td>
</tr>
<tr>
<td>J4</td>
<td>Herd Summary - Identity and Genetics</td>
</tr>
</tbody>
</table>
Appendix 12

1. Personnel Policy on Employment Status
Objective:

To establish employment conditions and define categories of employment to determine applicability of personnel policies.

Policy:

Employment with The University of Tennessee requires placement in one of the following employee categories:

1. **Faculty** - one who holds faculty rank and whose primary appointment is to engage in academic instruction, research, or service.

2. **Staff**
   a. **Other Academic** - one whose primary appointment is to engage in or support academic instruction, research, or service but who does not hold faculty rank.
   
   b. **Staff Exempt** - one who is not primarily engaged in academic instruction, research, or service; who holds a position of executive, administrative or managerial responsibility, or one that requires recognized professional achievement acquired either by formal training or equivalent experience; and who meets the appropriate salary test which is $11,700 for administrative, $13,000 for professional, and $18,200 for executive.

   c. **Staff Non-exempt** - one who is neither primarily engaged in academic instruction, research, or service nor charged with administrative or managerial responsibility. (All staff non-exempt employees serve a probationary period of 90 calendar days in an active pay status beginning with their first day of regular employment with the University.)

3. **Student** - one whose primary reason for being at the University is to be enrolled in academic courses.

Each employee is also assigned to one of the following three employee designations:

1. **Regular** - Employment for a period which is expected to be twelve (12) months or more. Academic year (nine months) and flex-year appointments paid over a twelve month period satisfy the twelve month requirement.
2. Term - Employment for a period which is expected to be less than twelve months.

Upon initial employment, term employees are eligible for Workers' Compensation benefits and participate in Social Security (refer to exceptions in Policy 385, Social Security Benefits). Refer to Policy 375, Retirement Plans, for retirement eligibility requirements.

After a term employee (excluding a State or University of Tennessee retiree) has been in an active pay status for 10 of the past 12 monthly or 22 of the past 26 biweekly pay periods, the employee must be considered for recategorization in a regular employee designation. At that time, a decision must be made to either terminate the employee, reclassify the employee, or retain the individual in the term classification. Reclassification of a term employee to a regular status must be accomplished in accordance with approved affirmative action procedures.

If the decision is to retain the individual in the term classification, the reason must be documented and approved in writing by the campus personnel officer or designee. The status of each employee designated as term will be monitored monthly to determine if the designation is appropriate.

Employees designated as regular cannot later be redesignated as term in their current position.

3. Student - Employment of the following:
   a. persons assigned an employee category of student
   b. persons assigned a job classification (title) of Non-UT Student Assistant.

Employees with a student employee designation are eligible only for Workers' Compensation benefits.

Employees are further assigned a percent of full-time effort and identified as either full-time or part-time as follows:

1. Full-time - Employees who are scheduled to work 40 hours per work week (37-½ hours at some hospital units and 45 hours at certain Institute of Agriculture units) are assigned a percent full-time of 100%.

2. Part-time - Employees who are scheduled to work less than 40 hours per work week have a percent full-time less than 100%.
Appendix 13

1. Search Request Form
THE UNIVERSITY OF TENNESSEE, INSTITUTE OF AGRICULTURE
REQUEST TO SEARCH (AA-1)
(For Positions Other Than Non-Exempt)

Division Ag Experiment Stations  AA File Number  
(To be entered by AAO)

Unit Dairy Experiment Station  Base Account_E11-5515

Regular  Regular  Term  If Term,  Grant/Contract
Full-time  Part-time  Full-time*  Expected Duration*  Funds*

Exe/Adm  Exe/Adm  Number of Months  Yes

Faculty  Faculty  Faculty  No

Staff  Staff  Staff
Exempt  Exempt  Exempt

Job Classification Title  Research Assistant/Associate  Number 26440/26430

Proposed Effective Date of Appointment  January 1, 1996

Proposed Salary Range*  $22,000 - 26,000

New Position  Revised Position  Replacement Position
Replacement for (Name)  Title  Research Associate

Race Caucasian  Sex Male

Salary*  $31,036  Date Position Vacated  10/31/95

Please attach the following: (1) Narrative Justification,* (2) Proposed Announcement,* (3) Job Description, and (4) Special Qualifications Desired.

A.)  B.)
Requested by:  Date  Approved by:  Date
Dean or Director (For Professional Staff)

C.)  D.)
Affirmative Action Review  Date  Approved by:  Date
Vice President for Agriculture  
(For Deans, Department Heads and Section Leaders)

*Optional, may be required by the Division
Appendix 14

1. Sample of Position Announcement
2. Sample Position Description
POSITION ANNOUNCEMENT

POSITION: Research Assistant/Associate

LOCATION: Dairy Experiment Station
             Lewisburg, TN 37091

QUALIFICATIONS: BS or MS Degree in Animal Science or related field; training in Dairy Science and computer technology desired.

RESPONSIBILITIES: The employee will be responsible for assisting the station superintendent and project leaders in initiating, planning and conducting research projects at the Dairy Experiment Station. In addition he/she will be responsible for providing leadership and supervising personnel involved in the daily activities on the station. The employee will be responsible for collection, recording and compiling data derived from research projects.

Knowledge of dairy cattle management to include feeding, artificial insemination and basic medication principles are necessary to meet the job responsibilities. Expertise in operation of desktop computer equipment is necessary.

*This employee will perform other duties as instructed by the station superintendent and be administratively responsible to him.

SALARY Commensurate with training and experience.

BENEFITS: Retirement, Sick Leave and Vacation, Group Health, Life and Accident Insurance

APPLICATION DEADLINE: April 15, 1996 or until suitable applicant is found.

POSITION AVAILABLE: May 1, 1996

APPLY TO: Henry H. Dowlen, Superintendent
           1070 New Lake Road
           Lewisburg, TN 37091

Applicants should include letter of interest, resume, college transcript and two letters of reference.

The University of Tennessee (campus or unit) does not discriminate on the basis of race, sex, color, religion, national origin, age, handicap, or veteran status in provision of educational opportunities or employment opportunities and benefits. The University does not discriminate on the basis of sex or handicap in the education programs and activities which it operates, pursuant to the requirements of Title IX of the Education Amendments of 1972, Pub.L. 92-318, and Section 504 of the Rehabilitation Act of 1973, Pub.L. 93-112; respectively. This policy extends to both employment by and admission to the University. Inquiries concerning Title IX and Section 504 should be directed to the Office of the Director Affirmative Action, P. O. Box 1071, Knoxville, TN 37901-1071, 865-974-7275. Charges of violation of the above policy should also be directed to the Office of the Director of Affirmative Action.
Position Description

Research Assistant
Herd Health
Dairy Experiment Station

The research assistant is a full-time exempt employee of The University of Tennessee Agricultural Experiment Station with duties at the Dairy Experiment Station at Lewisburg, TN. The position is responsible to the Superintendent of the Dairy Experiment Station for work assignments and administrative matters.

The general responsibilities of the position are to assist the project leader(s) in the planning and execution, data recording and summarization, and reporting phases of the research process. This may include:

1. Feeding and caring for animals, administering medications, maintenance of animal caging and pens, collecting data, and weighing animals.
2. Collecting and analyzing samples of milk, blood, tissue, stomach contents, feed, and feces.
3. Keeping records and analyzing data.
4. Maintaining supplies of feed and animal medications.
5. Maintaining laboratory equipment, supplies, and files.
6. Preparing summary tables and visual aids.
7. Providing leadership and guidance for the support staff.

More specifically, the person in this position has the following duties and responsibilities:

1. Provide assistance with daily management of a research dairy herd with special emphasis on herd health, reproduction, dry cow management and general daily duties associated with herd management.
2. Supervise and provide leadership to personnel in certain situations as directed by the superintendent.
3. Provide direction and/or assist superintendent, research associate and project leaders in developing and executing research projects at the station.
4. Using appropriate computerized equipment, collect, record and compile data derived from assigned research projects and prepare reports for project leaders as well as possible presentation at station continuing education programs.
5. Insure that required safety and health policies and procedures are maintained at all times to provide a safe environment for employees and visitors.

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Appendix 15

1. Personnel Policy Concerning Equal Opportunity and Affirmative Action
Objective:

To establish and define the University policy concerning fair employment practices and to ensure equal employment opportunity to all University employees and applicants for employment.

Policy:

It is the policy of The University of Tennessee not to discriminate against any employee or applicant for employment on the basis of race, color, religion, sex, national origin, disability, age, or being a disabled veteran or veteran of the Vietnam Era. This policy extends to recruitment, employment, promotion, demotion, transfer, lay-off, termination, compensation, training, benefits, and all other terms and conditions of employment.

Employment opportunities will not be distinguished on the basis of sex unless sex is a bona fide occupational qualification. Employment opportunities will not be distinguished on the basis of age except where age is reasonably taken into account as a factor necessary to the normal operation or the achievement of any statutory objective of a program or activity administered by the University.

The University will take affirmative action to recruit, employ, and to advance in employment minorities, women, disabled veterans, and veterans of the Vietnam Era. Reasonable accommodations will be made for otherwise qualified disabled veterans and persons with disabilities.

The University prohibits any retaliatory action against an employee for opposing a practice which he/she believes to be discriminatory, including the filing of an internal complaint or grievance or a charge with a state or federal civil rights enforcement agency.

Each unit will promulgate an Affirmative Action Plan for the implementation of the above commitment. Also, each unit will provide a complaint procedure for equal employment opportunity and discrimination complaints. Affirmative Action Plans will be publicized and made available to employees.
Appendix 16

1. List of Employee Benefits
SECTION 300 - BENEFITS

305 Annual Leave (Vacation)
307 Benefit in the Event of an Employee Death
310 Continuous Service Credit
315 Court Leave
320 Days of Administrative Closing
330 Educational Assistance (Fee Waiver)
331 Educational Assistance (Student Fee Discount) for Spouses and Dependent Children of Employees
335 Educational Leave
340 Funeral and Bereavement Leave
345 Group Insurance
350 Holidays
355 Leave of Absence
360 Leave Transfer Between the University and State Agencies
370 Military Leave
373 Personal Leave Day
375 Retirement Plans
380 Sick Leave
382 Sick Leave Bank
383 Sick Leave Transfer Between University Employees
385 Social Security Benefits
390 Tax Deferred Income Program
395 Time Off to Vote
397 Workers' Compensation

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Appendix 17

1. Sample Communications Pamphlet for DES
2. Sample Communications Pamphlet for Extension Service