

List of Publications Related to Energy Use on Dairies

1. Rec# 1. Agricultural Demand-Side Management Northeast Regional Agricultural Engineering Service, 152 Riley-Robb Hall, Cooperative Extension, Ithaca, NY 14853-5701.
2. Rec# 2. Agricultural Energy Information Program, 1991 Annual Conference on Agricultural Demand - Side Management Cornell University, 1991.
3. Rec# 3. Electric Power Research Institute (EPRI). Delivering Customer Value: Applying Quality Function Deployment to DemandSide Management (EPRU BR100598). 1992. A powerful technique successfully used in many other industries now exists for incorporating the voice of the customer residential, commercial, industrial, or agricultural into the selection, design, and marketing of demandside management programs. Known as quality function deployment (QFD), this technique is used to translate customer needs into the technical and organizational requirements for developing better products and services. The QFD process constructs a series of relational matrices depicted here as four "houses": house of value, house of options, house of activities, and house of management. QFD links customer needs, DSM program options, and the internal utility activities needed to effectively deliver these options to customers.
4. Rec# 4. Designing A Modern Milking Center, Parlors, Milking Systems, Management, and Economics.: Northeast Regional Agricultural Engineering Service, 1995. Northeast Regional Agricultural Engineering Service, Cooperative Extension, 152 Riley-Robb Hall, Ithaca, New York 14853-5701.
5. Rec# 5. Energy Efficient Electric Water Heating On Dairy Farms. Cornell University: Cornell Agricultural Energy Program, 1993.
6. Rec# 6. Energy Management for Dairy Operators. Ext-Bull-E-Coop-Ext-Serv-Mich-State-Univ. East Lansing : The Service. Feb 1979. (1273) 4 p. ill.. Available on microfiche for a fee from Microfilming Corp. of America, 1620 Hawkins Ave./P.O. Box 10, Sanford, N.C. 27330, Energy and Agriculture collection: CNV 796. DNAL 275.29-M58B.
7. Rec# 7. Energy Services That Work . American Public Power Association (APPA), Washington, DC, 1995. This is a comprehensive guide for understanding and implementing utility demand management and energy services programs. Programs are divided into these sections: residential, commercial/industrial, agricultural, and community.

8. Rec# 8. EPRI Industrial and Agricultural Business Unit National Electrotechnology Conference: Electric Power Research Institute (EPRI), Palo Alto, CA, 1995. This conference was held on June 21-23 in Chicago, IL. Key topics: materials fabrication healthcare municipal water & wastewater chemicals and petroleum food & agriculture pulp & paper textiles customer retention services.
9. Rec# 9. "Heat Recovery From Milk Cooling Equipment Energy Source. Warmerückgewinnung Aus Der Milchkuhlanlage. Warmerückgewinnung Aus Der Milchkuhlanlage." Milch-Prax-Rindermast. Gelsenkirchen-Buer, Verlag Th. Mann. v. 19 (1) (1981): p. 33. ill. DNAL SF221.M5.
10. Rec# 10. Heating and Cooling and Tempering Air for Livestock Housing. Iowa State University, Ames, Iowa 50011: Midwest Plan Service, 1990.
11. Rec# 11. Mechanical Ventilating Systems For Livestock Housing. Iowa State University, Ames Iowa 50011: Midwest Plan Service, 1990.
12. Rec# 12. Milking Systems and Milking Management Ithaca, New York, 14853: Northeast Regional Agricultural Engineering Service, 1988.
13. Rec# 13. William S. Hart, Jon Gehbauer. Tie Lines: A Compendium of Utility DSM Programs (3rd Edition). 1994. Reference: Energy Program Directories. Information within this compendium is divided into four markets: residential, commercial, industrial, and agricultural. Data were developed from a printed survey conducted by the ADSMP. A list of participating utilities is included, and each program entry contains contact information and a brief description.
14. Rec# 14. Wisconsin Energy Statistics 1994 Highlights. Company Reports: Wisconsin Energy Bureau ; 2nd copy in Books : Wisconsin Energy Bureau, Madison, WI , 1994. This report highlights Wisconsin's 1993 Energy Year, looking at resource energy consumption, residential energy use, residential electricity and natural gas use, commercial, industrial, electric utility, agricultural, and transportation energy use. Graphs on utility sales, emissions, fuels, and energy expenditures are included.
15. Rec# 15. Abarikwu, O. I. and R. N. Meroney. "Dairy Farm Wind Energy Systems." Trans-A-S-A-E-Am-Soc-Agric-Eng 26, no. 1 (January 1983-February 1983): 255-59. ill. Includes references. DNAL 290.9-AM32T.
16. Rec# 16. Adkins, S. W. and Michael J. Bader and Paul E. Sumner. "Energy7 Efficient Systems For Heating Water And Precooling Milk." ASAE December 13-16, 1994.
17. Rec# 17. Andersen, O. "Dairy Industry Can Reduce Energy Costs for Energy Used for Transport. Mejerierne Kan Reducere Omkostningerne Til Energi Ved at Fore Energiregnskab. Mejerierne Kan Reducere Omkostningerne Til Energi Ved at Fore Energiregnskab." Maelkeritidende. Odense, Foreningen Af Danske Mejeriledere Og -Funktionaerer. Oct 31, 1980. V. 93 (22) P. 616. III. DNAL 44.8-M26.

18. Rec# 18. Atwood, J. A., D. D. Schulte, and G. A. Helmers. "Systems Analysis of Economics of on-Farm Energy Production." Am-Soc-Agric-Eng-Microfiche-Collect. St. Joseph, Mich. : The Society. 1986. (Fiche No. 86-4070) 22 P. Paper presented at the 1986 Summer Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. DNAL FICHE-S-72. linear-programming/ systems-analysis/ economics-/ farms-/ methane-production/ ethanol-.
19. Rec# 19. Baker, T. G., P. M. Dixit, and B. A. McCarl. Documentation and Use of a Computer Software Package for Simulation of Optimal Investment in Dairy Processing. Stn-Bull-Dep-Agric-Econ-Agric-Exp-Stn-Purdue-Univ. West Lafayette, The Station. Sept 1981. (345) 191 p. charts. Extract: The purposes of this document are to describe the general structure of a model developed to determine optimal investment in the dairy processing industry and to describe the computer program and computerized procedures involved in implementation of the model. The primary objective for developing the model was to provide a methodological tool to facilitate the analysis of plant investment choices, particularly investment choices relating to new energy conserving technologies within the dairy processing sector. The dairy industry model is multi-period in nature and encompasses the transportation of raw, intermediate, and final products as well as the processing of fluid milk, butter powder, and cheese. While the model has a significant amount of detail on energy, it should be useful in evaluating many types of investments. HD1775.I6I5. Energy-/ Investment-/ Dairy-manufacturing/ Linear-programming/ Computer-programs.
20. Rec# 20. Barloy, J. "Energy Consumption of Dairy Farms. Consommations Energetiques D'Exploitations Laitieres. Consommations Energetiques D'Exploitations Laitieres." Cultivar. Lille, S.n. Oct 1981. (143) P. 82-83. DNAL SB183.C8.
21. Rec# 21. Bartlett, H. D., S. P. Persson, and R. W. TI Energy production potential of a 100 m³ biogas generator Producing methane gas by anaerobic digestion of dairy cow manure for the Penn State. Regan. " Agricultural Energy : Selected Papers and Abstracts From the 1980 ASAE National Energy Symposium. St. Joseph, Mich., American Society of Agricultural Engineers, C1981. P. 373-378. Ill. DNAL S494.5.E5A365-1980. Pennsylvania-.
22. Rec# 22. Bauman, B. "Research Project Development for Energy Cost Savings in Milk Cooling." Am-Soc-Agric-Eng-Microfiche-Collect. St. Joseph, Mich. : The Society. 1987. (Fiche No. 87-3522) 9 P. Paper presented at the 1987 Winter Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. DNAL FICHE-S-72. electric-power/ energy-consumption/ cost-analysis/ research-projects/ milk-cooling.

23. Rec# 23. Behrens, G., V. Stephan, and H. J. Muller. "Natural Ventilation in Dairy Production--Energy Saving and Health Keeping Methods. Freie Luftung in Der Milchproduktion, Ein Beispiel Fur Energiesparende Und Gesunde Haltung. Freie Luftung in Der Milchproduktion, Ein Beispiel Fur Energiesparende Und Gesunde Haltung." Tierzucht 38, no. 1 (January 1984): 32-34. ill. DNAL 49-T443.
24. Rec# 24. Belcher, J. R. "Heat Recovery From Farm Milk Cooling." Proceedings of the One-Day Symposium 'Heat Pumps in Farming' Held at Bristol University on 22nd March 1982 / : sponsored jointly by the Institute of Refrigeration, South Western Branch, and the University of Bristol. Bristol, U.K. : University of Bristol, c1982. p. 8.1-8.5. ill. DNAL TJ262.H4-1982. heat-recovery/ milk-cooling/ milk-coolers/ energy-recovery/ united-kingdom.
25. Rec# 25. Bertoncej, M. and J. Pogacar. "Use of Live Work and Energy in Different Systems of Rearing Dairy Cows Costs, Energy Consumption, Mechanization, Slovenia. Poraba Zivega Dela in Energije v Razlicnih Sistemih Reje Krav Molznic. Poraba Zivega Dela in Energije v Razlicnih Sistemih Reje Krav Molznic." Zb-Biotehn-Fak-Univ-Edvarda-Kardelja-Ljublj-Kmetijstvo. Ljubljana : Fakulteta. 1981 v. 38 p. 97-112. 13 ref. DNAL 21.5-Z15. Yugoslavia-
26. Rec# 26. _____. "Utilization of Live Work and Energy in Different Systems of Keeping Dairy Cows Farm Management, Slovenia. Poraba Zivega Dela in Energije v Razlicnih Sistemih Reje Krav Molznic. Poraba Zivega Dela in Energije v Razlicnih Sistemih Reje Krav Molznic." Zb-Biotehn-Fak-Univ-Edvarda-Kardelja-Ljublj-Kmetijstvo. no. 38 (1981): 97-112. Includes references. DNAL 21.5-Z15. Yugoslavia-
27. Rec# 27. Bills, N. L. and M. J. Kelleher. An Overview of the 1988 Rural Household and Farm Energy Use Survey. Cornell-Agric-Econ-Staff-Pap-Dep-Agric-Econ-Cornell-Univ-Agric-Exp-Stn. Ithaca, N.Y. : The Station. Feb 1989. (89-3) AGL 20 p. maps.. DNAL HD1407.C6. rural-housing/ farms-/ energy-consumption/ enumeration-surveys/ computer-applications/ new-york.
28. Rec# 28. Blandini, G. and S. Sisinna. "Energy Saving in Agriculture by the Use of Heat Pumps. 2. Application in Dairy Farming. Possibilita Di Risparmi Energetici in Agricoltura Con L'Impiego Di Pompe Di Calore. Secondo Contributo. 2. Applicazione Negli Allevamenti Da Latte. Possibilita Di Risparmi Energetici in Agricoltura Con L'Impiego Di Pompe Di Calore. Secondo Contributo. 2. Applicazione Negli Allevamenti Da Latte." Riv-Ing-Agrar 14, no. 1 (March 1983): 19-24. Includes references. DNAL S671.R5.
29. Rec# 29. Blobaum, R. "Toward Energy Self-Sufficiency: the Small Farm Energy Project Experience Education, Conservation, Weatherization, Solar and Other Energy Systems." Agriculture As a Producer and Consumer of Energy / Edited by William Lockeretz. Boulder, Colo. : Pub. by Westview Press for American Assn. for the Advancement of Science, 1982. P. 25-40. DNAL S494.5.E5A39.

30. Rec# 30. Bodria, L. Castelli G., G. Pellizzi, and F. Sangiorgi. "Optimization of an Integrated Renewable Energy System in a Dairy Farm Italy." Proc-Energy-Biomass. London, Allied Science Publishers. DNAL TP360.I5. Italy-.
31. Rec# 31. Boisvert, Richard N. and New York State College of Agriculture and Life Sciences. Dept. of Agricultural Economics. "Time-of-Use Rates and Electricity Costs of Representative New York Dairy Farms." Ithaca, N.Y. : Dept. of Agricultural Economics, Cornell University Agricultural Experiment Station, College of Agriculture and Life Sciences, Cornell University, [1992] 48 p. : ill. Title from cover. DNAL 281.9-C81A-no.92-8. Electric-utilities-New-York-State-Rates-Time-of-use-pricing/ Dairy-farms-New-York-State-Energy-consumption-Costs.
32. Rec# 32. Bonomi, E. "Energy Conservation in the Dairy Industry Operation of Pasteurization Equipment. Recupero Energetico Nell'Industria Lattiera. Recupero Energetico Nell'Industria Lattiera." Sci-Tec-Latt-Casearia. Parma, Associazione Italiana Tecnici Del Latte. Feb 1980. V. 31 (1) P. 49-59. DNAL 44.8-SCI2.
33. Rec# 33. Boor, P. and others. "Electrical Energy End-Use on Wisconsin Dairies." Am-Soc-Agric-Eng-Microfiche-Collect. : The Society. St. Joseph, Mich. 1988. (Fiche No. 88-3554) 16 P. Paper presented at the 1988 Winter Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. DNAL FICHE-S-72. dairy-farms/ electrical-energy/ energy-consumption/ wisconsin-.
34. Rec# 34. _____. "A Load Management Study in Wisconsin." Am-Soc-Agric-Eng-Microfiche-Collect. : The Society. St. Joseph, Mich. 1988. Paper presented at the 1988 Winter Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. DNAL FICHE-S-72. dairy-farms/ electricity-/ energy-consumption/ loads-/ management-/ energy-conservation/ wisconsin-.
35. Rec# 35. Brooks, L. A. "Electric Energy Management on Dairy Farms." Energy-World-Agric. Amsterdam : Elsevier. 1989. V. 3 P. 93-120. In the series analytic: Energy in World Agriculture / edited by K.L. McFate. DNAL S494.5.E547. dairy-farming/ dairy-equipment/ electricity-/ electrical-energy/ milking-/ milking-machines/ milk-production/ farm-buildings/ ventilation-/ fans-/ fodder-crops/ storage-/ equipment-/ silage-/ electric-heaters/ heat-exchangers/ manures-/ dairy-effluent/ handling-/ pumps-.
36. Rec# 36. Brouwer, J. and J. van Geneijgen. "Warm Water in the Farmhouse Via Milk Cooling [Energy Conservation, Heat Pump Installation, Netherlands]. Warm Water in De Woning Via Melkkoeling. Warm Water in De Woning Via Melkkoeling." Jaarversl-Proefstn-Rundveehouderij (1983): 65-67. ill. DNAL SF191.P7. Netherlands-.

37. Rec# 37. Bruins, W. J. "Total Direct Energy Consumption on Modern Dairy Farms [Electricity, Gas, Tractor Fuel, Zuider Zee Polders, Netherlands]. Het Directe Energieverbruik Op Moderne Milkveehouderijbedrijven. Het Directe Energieverbruik Op Moderne Milkveehouderijbedrijven." Landbouwmecanisaie 35, no. 5 (May 1984): 483-85. ill. DNAL 58.8-L2352. Netherlands-.
38. Rec# 38. Carpenter, J. L. "Economic Realities of Energy Conservation in UK Farm Dairies." Agric-Eng 44, no. 1 (Spring 1989): 19-23. ill. Includes references. DNAL 58.9-IN7. energy-conservation/ electrical-energy/ dairy-farming/ milking-parlors/ electricity-supplies/ united-kingdom.
39. Rec# 39. Carpenter, J. L., E. A. Vallis, and A. T. Vranich. "Performance of a UK Dairy Solar Water Heater." J-Agric-Eng-Res 35, no. 2 (October 1986): 131-39. ill. Includes references. DNAL 58.8-J82. farm-dairies/ solar-heating/ water-/ solar-collectors/ evaluation-/ energy-conservation/ efficiency-/ costs-/ design-/ united-kingdom.
40. Rec# 40. Centec Corp. "Energy Conservation and Cost Benefits in the Dairy Processing Industry : a Technology Applications Manual : Technology Transfer. Dairy Processing Industry." [Oakridge, Tenn.] : Technical Information Center, U.S. Dept. of Energy ; Springfield, Va. : Available from National Technical Information Service, U.S. Dept. of Commerce, 1982. 112 p. : ill. Author information from t.p. verso. DNAL SF250.5.E63. Dairy-processing-Energy-conservation/ Energy-conservation-Costs.
41. Rec# 41. Chastain, J. P. and others. "Analysis of Electrical Energy Usage and Loads on Kentucky Dairies." Am-Soc-Agric-Eng-Microfiche-Collect. St. Joseph, Mich. : The Society. 1987. (fiche no. 87-3519) 25 p. Paper presented at the 1987 Winter Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. DNAL FICHE-S-72. electrical-energy/ energy-consumption/ load-/ dairy-farming/ analysis-/ kentucky-.
42. Rec# 42. Chastain, John P. "On-Site Investigation of Indoor Lighting Systems for Dairy Facilities." ASAE December 13-16, 1994.
43. Rec# 43. Christensens, J. C. "Profitability of Recovering Heat From Milk Cooling Tanks Energy Sources. Rentabelt at Genvinde Varme Fra Koletanke. Rentabelt at Genvinde Varme Fra Koletanke." Maelkeritidende. Odense. Foreningen Af Danske Mejeriledere Og- Funktonaerer v. 91 (49) p. 1171-1172. (December 1978). DNAL 44.8-M26.
44. Rec# 44. Cindric, M. "Conservation of Energy in the Production of Dairy Products. Usteda Energije u Mljekarskoj Proizvodnji. Usteda Energije u Mljekarskoj Proizvodnji." Mljekarstvo 33, no. 3 (March 1983): 86-88. Includes 4 references. DNAL 44.8-M694AC. dairy-technology/ refrigeration-/ energy-conservation.

45. Rec# 45. Commission of the European Communities. Directorate General for Energy. "Dairy Industry in the European Economic Community : Final Report." Luxembourg : Commission of the European Communities. Directorate-General Telecommunications, Information Industries, and Innovation, 1987. ix, 148 p. : ill. "Directorate-General, Energy." DNAL HD9275.E862D3. Dairying-European-Economic-Community-countries.
46. Rec# 46. Conference on Solar Energy for Livestock Production, College Park Md. 1979. United States. Dept. of Agriculture. United States. Dept. of Energy. American Society of Agricultural Engineers. Maryland. University. Dept. of Agricultural Engineering. Virginia Polytechnic Institute and State University. Dept. of Agricultural Engineering. "Proceedings of the Conference on Solar Energy for Livestock Production : Dairy, Swine, Poultry, November 28-29, 1979. Solar Energy for Livestock Production." Blacksburg, Va. : Agricultural Engineering Dept., Virginia Tech, 1980. 221 p. : ill. Sponsored by U.S. Dept. of Energy and U.S. Dept. of Agriculture, co-sponsored by American Society of Agricultural Engineers, University of Maryland Agricultural Engineering Dept., in cooperation with University of Maryland College Conferences and Institutes Division. Includes bibliographical references. DNAL TJ810.C65-1979. Solar-energy-in-agriculture-Congresses.
47. Rec# 47. CONSTEIN, E J. and others. REDUCING FARM ENERGY COSTS. Energy-Agric-Collect-Mich-State-Univ-Dept-Agric-Eng. 1979. SOURCE, SCI AND TECH GUIDE 1240, UNIV OF MISSOURI, COLUMBIA, AUG 1975, 2 PP. DNAL S494.5.E5E62. CONSERVATION-/ TILLAGE-/ DRYING-/ ELECTRICAL-/ IRRIGATION-/ TRANSPORTATION-/ 009-.
48. Rec# 48. Cox, G. TI Energy in the dairy milking shed Consumption and cost of electricity. " Aust-J-Dairy-Technol. Melbourne, Australian Society of Dairy Technology. v. 34 (3) p. 128-130. ill. (September 1979). DNAL 44.8-AU74. Australia-.
49. Rec# 49. Cox, Geoffrey C. Geoffrey Charles 1946. "An Investigation of the Development in Research and Commercial Use of Energy Efficient Technologies in the European Dairy Industry, 1981." [Melbourne?] Vic. : Dept. of Agriculture, Government of Victoria, [1982?] 54 p. "August, 1988."--Cover. DNAL SF233.E9C68. Dairying-Technological-innovations-Europe.
50. Rec# 50. Crawford, Fred M. "Protecting Bulk Tank Refrigeration Units and Using Their Heat." Document available from: University of Missouri, Extension Publications, 222 S. Fifth Street, Columbia, Missouri 65201. 1980 3 p. : ill. This publication discusses using the heat produced from refrigerating milk to heat the milking parlor in cold weather, and how to cool both in the summer with a compressor shed. DNAL Document-available-from-source. Agricultural-engineering/ Animal-science/ Energy-/ Equipment-/ Ventilation-/ Refrigeration-/ Dairy-/ Management-/ Agriculture-/ Livestock-.
51. Rec# 51. Cromack, D. E. TI Potential applications for wind energy Farm and orchard application in heating cooling refrigeration. " New-Engl-Fruit-Meet-Proc-

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52. Rec# 52. CURRIER, J W R. REFRIGERATION ENERGY IN RAW MILK STORAGE. 1979. SOURCE, BULLETIN DE L INSTITUT DU FROID ANNEXE, 1/173-178, 1976. COMPARES ENERGY EFFICIENCY OF ALTERNATIVE MILK-COOLING SYSTEMS. DNAL S494.5.E5E62. FOOD-PROCESSING/ FLUID-MILK/ STORAGE-/ REFRIGERATION-/ NEW-ZEALAND/ 015-.
53. Rec# 53. Demmel, D. TI The Small Farm Energy Project Nebraska energy research on the family farm. " Alternative-Sources-Energy. Milaca, Minn., Alternative Sources of Energy, Inc. (37) p. 3-5. ill. (May 1979-June 1979). DNAL TJ163.2.A43. Nebraska-.
54. Rec# 54. Down, M. J. "On-Farm Energy Use in Irrigation. On Farm Energy Use in Irrigation." Parkville, Vic., Australia : University of Melbourne, Department of Civil and Agricultural Engineering, [1986] [78] p. : ill. "RR/AGR/06/86." DNAL S671.M47-no.78/86.
55. Rec# 55. Draxler, H. "Possibilités de l'Énergie Économique Utilisée à l'Échelle Nationale et Internationale [Dairy Industry]. Möglichkeiten Des Wirtschaftlichen Energieeinsatzes Aus Nationaler Und Internationaler Sicht. Möglichkeiten Des Wirtschaftlichen Energieeinsatzes Aus Nationaler Und Internationaler Sicht." Milchwirtsch-Ber-Bundesanst-Wolfspassing-Rotholz. Wolfspassing, W. Ger. : Verein Ford. Wissenschaftl. Versuchstatig. Milchwirtschaftl. Bundesanst. v. 74 p. 45-52. ill. (March 1983). DNAL 44.8-M5998.
56. Rec# 56. Fairbank, W C. "California's Dairy Energy Committee." Agric-Eng-St-Joseph,-Mich, 59 (3): 20-21. (March 1978). DNAL 58.8-AG83. California-.
57. Rec# 57. Fang, Z., D. L. Larson, and G. Fleischman. "Exergy Analysis of a Milk Processing System." Trans-ASAE 38, no. 6 (November 1995-December 1995): 1825-32. Includes references. Exergy optimization was used to evaluate milk processing system energy use and identify parameters and/or strategies yielding most effective use of energy quality. Exergy optimization results were then compared with results of energy optimization analysis conducted to minimize the energy use quantity. Although milk cooler, heater, and regenerator energy use efficiencies were near maximum attainable values, exergy analysis provided recommendations which could yield substantial improvements in system exergy performance, particularly minimization of homogenizer pressure drop and maximization of heat exchanger heat transfer coefficients. The analysis also dramatically showed the benefits of considering system, rather than component, energy use in developing energy management strategies. DNAL 290.9-Am32T. milk-processing/ systems-/ energy-consumption/ optimization-/ systems-analysis/ methodology-/ efficiency-/ thermodynamics-/ dairy- equipment/ heat-transfer/ exergy-optimization/ thermodynamic-irreversibility.

58. Rec# 58. Fangjiang Guo, D. C. Ludington and D. J. Aneshansley. "Vacuum Controller Dynamics in Conventional Vacuum Milking System." ASAE, 1991
59. Rec# 59. Fangjiang Guo, D. C. Ludington D. J. Aneshansley and R. A. Pellerin. "Control Vacuum Pump Speed for Vacuum Stability." ASAE, 1991.
60. Rec# 60. Farmer, G. S. and D. C. Ludington and R. A. Pellerin. "A Review Of Electricity Use And The Impact Of Selected Demand-Side Management Technologies On Dairy Farms." ASAE, 1990.
61. Rec# 61. Farmer, G. S. and G. Shidle and David C. Ludington. Energy Efficient Milk Cooling. Cornell Agricultural Energy Program 93-4. 4 pp, 1993.
62. Rec# 62. Farmer, G. S. and Ginny Shidle and D. C. Ludington. Energy Efficient Outdoor Security Lighting. Cornell Agricultural Energy Program 93-2. 4 pp., 1993.
63. Rec# 63. Farmer, G. S. and Ginny Shidle and David C. Ludington. Choosing and Maintaining Energy Efficient Ventilation Fans. Cornell Agricultural Energy Program 93-1. 4 pp., 1993.
64. Rec# 64. Farmer, G. S. and Ginny Shidle and David C. Ludington. Water Heating on Dairy Farms. Cornell Agricultural Energy Program 93-3. 4 pp. 1993.
65. Rec# 65. Farmer, G. S. and J. Potter. "Dairy Energy Audit Software With Time-of-Use Estimates." International Winter Meeting of the American Society of Agricultural Engineers(ASAE) Dec. 16-18, 1992. Paper No. 923536.
66. Rec# 66. Farmer, G. S., D. C. Ludington, and R. A. Pellerin. "Energy Utilization Indices--Dairy Farms in Upstate New York." Am-Soc-Agric-Eng-Microfiche-Collect. St. Joseph, Mich. : The Society. (fiche no. 88-3556) 19 p. (1988). Paper presented at the 1988 Winter Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. DNAL FICHE-S-72. dairy-farms/ electricity-/ energy-consumption/ energy-conservation/ new-york.
67. Rec# 67. _____. "A Review of Electricity Use and the Impact of Selected Demand-Side Management Technologies on Dairy Farms." PAP-AMER-SOC-AGRIC-ENG. St. Joseph, Mich. : The Society. Winter 1990. (90-3566) 23 p. (1990). Paper presented at the "1990 International Winter Meeting sponsored by the American Society of Agricultural Engineers," December 18-21, 1990, Chigago, Illinois. DNAL 290.9-AM32P. dairy-farms/ electricity-/ energy-conservation.
68. Rec# 68. Farmer, G. and J. H. Potter. "Dairy Energy Audit Software With Time-of-Use Estimates." Pap-Am-Soc-Agric-Eng. St. Joseph, Mich. : American Society of Agricultural Engineers. Winter 1992. (923536) 14 P. Paper presented at the "1992 International winter meeting sponsored by the American Society of

- Agricultural Engineers," December 15-18, 1992, Nashville, Tennessee. DNAL 290.9-Am32P. dairy-farms/ electricity-/ energy-conservation/ computer-software.
69. Rec# 69. Fletzer, E. "Energy Conservation Measures for Dairy and Cheese Industry. Energiesparmassnahmen Fur Molkerein Und Kasereien. Energiesparmassnahmen Fur Molkerein Und Kasereien." Milchwirtsch-Ber-Bundesanst-Wolfpassing-Rotholz. Wolfpassing, W. Ger. : Verein Ford. Wissenschaftl. Versuchstatig. Milchwirtschaftl. Bundesanst. (73) p. 271-275. ill. (December 1982). DNAL 44.8-M5998.
 70. Rec# 70. Ford, S. E. and Christianson L. L. and Riskowski G. L. and Funk T. L. and Priest J. B. Agricultural Ventilation Fans. University of Illinois at Urban-Champaign: 1995.
 71. Rec# 71. FRANK, G G. A GUIDE TO ENERGY SAVINGS--FOR THE DAIRY FARMER. Energy-Agric-Collect-Mich-State-Univ-Dept-Agric-Eng. 1979, 7th ed. (147). SOURCE, FEA, OFFICE OF COMMUNICATION, PUBLICATIONS DIV, U.S. DEPT OF AGR, WASHINGTON DC 20250, JUNE 1977, 50PP. DNAL S494.5.E5E62. AGRICULTURE-/ DAIRY-/ CONSERVATION-/ ENERGY-CONSUMPTION/ 002-.
 72. Rec# 72. Gaast, G. van der. "Energy Saving on Dairy Farms. Energiebesparing Bij De Melkwinning. Energiebesparing Bij De Melkwinning." Landbouwmecanisatie. Wageningen, Stichting Mechanisatie Centrum. v. 32 (11) p. 1043-1047. ill. (November 1981). DNAL 58.8-L2352.
 73. Rec# 73. Gimby, M. "Farm Energy Management Program : Year I Report.". S.I. : Saskatchewan Research Council, 1982. 165 leaves in various foliations : ill. "March, 1982." DNAL S494.5.E5F37. Agriculture-Energy-consumption-Saskatchewan/ Agriculture-Energy-conservation-Saskatchewan/ Farm-management-Saskatchewan.
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