Repro Manager: A user friendly computer program to improve reproductive performance of dairy herds

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Abstract

An interactive computer training program is being developed in Toolbook® for Windows®. The program consists of an introduction, goals of reproductive performance, example farms, and tools to improve dairy herd reproduction. A help module supplies the user with a glossary of key terms, reproductive indices, abbreviations and definitions. The subject matter is presented in form of tutorials, case studies, simulations and partial budgets. Users are required to be active, independent learners and problem solvers. Learning objectives include the following: 1) setting achievable goals, 2) identifying problem areas in a herd, 3) selection and use of appropriate technological tools to improve reproductive performance, and 4) monitoring economical success.

The averages and the distributions of calving intervals and other reproductive performance measures within a herd are utilized to demonstrate the effect of reproduction on profitability of milk production. Concepts of the routine use of prostaglandin in reproductive management are presented by means of flowcharts, schedules of activities and before and after comparisons. Different prostaglandin protocols (e.g. based on rectal palpation, on a fixed schedule, on milk progesterone) are evaluated. The program demonstrates also concepts of other technological tools such as GnRH and on-farm milk progesterone tests.

Hardware and software requirements to run the program include the following: IBM compatible 386 PC, 4 MB RAM, 5 MB harddrive space, Windows 3.1, Mouse.

Current Technology in Automated Milking Parlors

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Abstract

Estimating milk production has been important for dairy management and genetic improvement. This measurement did not start with computers: DHIA had hand-calculated, monthly test programs in place well before computers existed. The advent of centralized mainframes contributed to the rapid genetic improvement in the last thirty years. Some producers have found daily milk measurement helpful in management - for feeding, heat dection, and disease detection. As herd size increases, the benefits of automated milk recording and cow identification become clearer.

Automated cow identification is not new technology. However, there has been an increased interest in the past few years. As of this writing, there are at least seven commercial sources of automated milk meters and cow ID. Although the original motivation was milk measurement, there are three other uses which will also be discussed.

Parlor computers provide detailed data collection, including time milked, duration of milking, total milk, "pen-milked-in", etc. Parlor performance can be analyzed and improved by using these data.

Pedometers allow measurement of cow activity, which can assist in the detection of heats and diseases, especially when combined with milk production. The use of two measures can improve both the sensitivity and specificity.

Exit (cut) gates are another benefit of automated ID. As cows leave the parlor, they can be retained if needed. These cows can be selected by individual, or by exception from the parlor measurement, or by management for specific tasks - dry off, prostaglandin/bST injections, veterinary examination lists, etc.

Experience and examples will be presented.