# Predicting Moneymaking Sires

Distinguishing a superior dairy bull from a mediocre one is easier than ever thanks to repeatability estimates now provided with sire evaluations.

These "confidence indicators," developed by ARS researchers, foretell how accurately the sire evaluation or summary, can predict the performance of a bull's future progeny.

Research shows that sire summaries are valuable; dairymen who use them effectively may potentially increase income by $20 per cow or more.

Prepared by ARS scientists from data collected by the Dairy Herd Improvement Association (DHIA), the sire summaries indicate the likelihood of a bull siring daughters with a certain level of milk production. The summary is a composite rating of daughters already sired by a particular bull; it compares their milk production with that of other bull's daughters in the same herd.

Mathematically, however, two bulls may have the same numerical sire summary even if one has daughters with more extensive and meaningful records

This is so, first, because cows in the herd to which a bull's daughter is compared may all be daughters of a few unrepresentative bulls with genetic capacity above or below the breed average. Furthermore, daughters in a single herd seem to perform more similarly than do daughters distributed over several herds because cows of a herd are managed and housed alike. Thus, records on bulls increase in value as their daughters are more dispersed. Five daughters in separate herds, for example, provide data for sire summaries as valuable as 20 daughters in one herd.

Secondly, cows can better express their true genetic milk producing ability as the number of their yearly production records increase. ARS calculations show that a cow with three records should be rated 50 percent higher in the sire summary than cows with a single record.

The repeatability estimate, when applied to a bull with records including extensive and varied information, will indicate with near certainty that future progeny will be as good as the summary predicts For a young bull, the new information gives odds on whether his progeny will be better or worse than the summary predicts

The value of sire summaries to dairymen is shown by computing the production records of 182 cows in the Beltsville herd, using average U S. milk prices for 1966. When DHIA records predicted that a bull would sire daughters producing 100 pounds above the breed average, use of that bull returned $3.22 per daughter in extra profits, expressed as income above feed costs.

Bulls in the Nation's artificial insemination program have an average predicted advantage of 151 pounds of extra milk in their daughters' production — an advantage worth $4.86. Dairymen can do even better by restricting semen collection to bulls with daughters predicted to yield at least 400 pounds of milk above breed average. In this case, extra profits would amount to $21.80 per cow at 1966 prices, with accrued profits to the U.S. dairy industry of $141.7 million.

ARS dairy researchers F. N. Dickinson and B. T. McDaniel, who directed this study, say that there are enough +400 pound bulls available today to meet the needs of almost any dairyman who requests them. They add that a dairyman who spends 3 hours per year on a record search can readily identify +400 pound bulls that suit his other prerequisites.

## ● Have You Heard?

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getables or fruit on the skewer.

Cook meat thoroughly, or for rare beef kabobs push the meat and vegetables close together on the skewers.

There is no limit to combinations of foods you can use for kabobs.

For meat you can use: beef, ham, bacon, luncheon meat, frankfurters, sausage, bologna, liver, lamb, shrimp, and scallops.

For the other ingredients try: pineapple, orange sections, crab apples, prunes, apple slices, banana chunks, onions, potatoes, tomatoes, mushrooms, carrots, peppers, celery, pickles, and olives.

Be sure foods you use on the skewer have the same cooking time.

### Prevent Mildew

Molds that cause mildew are always in the air but need moisture and certain temperatures to grow.

Mildew will grow on anything from which it can get enough food including leather, plastered and painted walls, wallpaper, and upholstered furniture.

Prevent mildew by removing dampness Allow clothes to dry before storing them in a closet or putting them in a hamper.

Leaving a light burning in the closet or using an electric fan or heater in damp areas will also reduce risk of mildew.