

# Dairy Expert Smells Work To Be Done

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**NEWARK, Del.** — Have you heard of the ram effect?

I don't mean the Dodge Ram, nor do I mean using a battering ram to force down castle gates. It's much more subtle, much more sophisticated; it's something you can smell.

Rather, it's something certain animals can smell. If people could smell this "effect," life would be easier.

People can smell Christian Dior fragrances on other people and usually find a certain pleasure in it. But those odors are fairly strong.

As for animals, much smaller amounts of very specific kinds of smells seem to have an equally pleasant effect. In fact, these smells send messages, messages that somebody is receptive to physical approach or the reverse — that this is somebody's territory and you are off limits.

The scientific name for these odor messages is pheromone, a powerful communicator among animals.

If people could master, as Dr. Doolittle did, what the "language" means and when it occurs, animal management would be much easier.

Actually, the chemical industry has begun to identify some of these communicator pheromones.

Some companies now produce pheromones commercially as bait to lure certain insects to an artificial "love" trap or to aid pig farmers in waking up "sleepy" sows and get them more interested in service by a boar.

Humans, however, are far from smelling either these megadoses of artificial imitations or the natural subtle whiffs of communicating pheromones.

This brings us to what has now become known in scientific terminology as the "ram effect."

It's a subtle odor that works on ewes to stimulate their ovaries and to aid in better conception. Sheep breeders have long recognized the signs, not from smelling, but from observing flock behavior.

Breeders have taken advantage of this phenomenon for greater breeding success and profit.

Horse breeders know that you can't just take a mare to a stallion for service — one, two, three, zip, zip, it's done.

Instead, the mare is held on the other side of the fence for some time, maybe an hour or more, to stimulate the stallion at the sight of her and to stimulate him with the odor signals that the mare is ovulating and ready for service.

This practice also stimulates the mare into better receptivity.

In the wild, these pheromone signals are important for propagation of the species. The two sexes communicate to ensure success for the effort of finding each other. They economize their effort so as not to waste it on animals that aren't ovulating nor ready to conceive.

How does this fit into dairy cattle management?

Well, we have coined the term "silent estrus," which means people can't tell from smell when a dairy cow is in estrus. Our noses are incapable of receiving the pheromone signals.

The bull, however, has no problem sorting out and interpreting the smells.

Scientific literature is full of studies trying to find alternative signals in cow behavior to help us identify cows in estrus. We look for restlessness, we put pedometers on the cows' legs to tell differences in activity, we look for the mounting cow by putting pressure-color patches on their rumps.

But many dairy farmers have retained a bull, a "ketch up" bull, to do the smelling for them and "ketch" those cows we've missed.

It's high time we add a new name to our vocabulary of technical terms: "bull effect." This would help us focus on our inability so far to duplicate the effect of bull behavior and smelling for more successful dairy cow conception.

We bemoan the long time it takes many dairy farmers to get their cows pregnant again after the last calving, and we have made no headway in this area in recent years. Despite all kinds of modern technology, we are still missing the "bull effect."

A very interesting new study at the USDA Sheep Experiment Station in Idaho (Journal of Animal

Science 1994 (72) :51-55) indicates that pheromones produced by the wax and wool of rams are not the only inducements to ovulation in anovular ewes.

The level and degree of sexual behavior of the ram is also important in initiating ovarian cycle activity as well.

Two types of rams were compared, low level vs. high level sexual performance, libido; that is, more courtship and more time spent with the ewes.

The efforts paid off in earlier and higher hormone levels in the ewes and ovulation occurred in 98 percent of ewes penned with high level rams vs. only 78 percent in

ewes with low level rams. It has even been shown that ewes in anestrus were even stimulated to come into estrus.

For dairy cattle breeding this means that pheromones in detecting cows in estrus or stimulating them into estrus have not been explored and exploited yet.

And the complementary importance of bull behavior for exploiting the "bull effect" for better ovulation and conception rates has not been translated from the empirical states of "ketch up" bulls to a more profitable systematic inclusion in routine, quick artificial insemination techniques for better success in dairy cattle management.

## ASCS Recommends Premeasurement

**LIONVILLE (Chester Co.)** — Hollis D. Baker, county executive director of the Chester/Delaware County Agricultural Stabilization and Conservation Service (ASCS), says farmers who use premeasurement service before planting their spring crops will be guaranteed that their field sizes are accurate for the 1994 program

year. "Premeasuring assures farmers that they are in compliance with the acreage reduction requirements," said Baker, "and eliminates the worry over loss of program benefits."

Before crop planting time, ASCS will stake and measure any type of acreage, or portions there-

of, that a farmer requests. To be assured that acreage reduction requirements are met, farmers must plant within the stakes that are placed when the land is premeasured.

ASCS is conducting sign-up for the 1994 farm programs. Program participants are required to report actual planted crops and other acreage to be eligible for price support loans, target prices, and other program benefits.

"Premeasurement is important in helping producers plan which land to devote to the ACR and which fields to plant," the ASCS official said. The service costs \$20 plus acres measured and includes measuring, referencing, and marking fields with stakes prior to planting.

To schedule premeasurement and other producer service, farmers should contact the Chester/Delaware County ASCS office at 71 W. Uwchlan Ave., Suite 130, Lionville, PA 19341-3011 (610) 363-1626.

## Dekalb Signs Agreement To Produce, Market Stock

**DEKALB, Ill.** — Dekalb Swine Breeders, Inc. said that it has signed an agreement with United Grain Growers Limited of Winnipeg, Manitoba that allows the Canadian company to produce and to market certain commercial lines of swine breeding stock through its Unipork Genetics business unit.

Under the agreement, United Grain Growers has production, distribution, marketing and trademark rights to JSR Healthbred


commercial lines in the western Canadian provinces of British Columbia, Alberta, Saskatchewan, and Manitoba.

United Grain Growers will produce parent stock boars and gilts that will be marketed under the JSR "Meatparker" and "Gene-packer" trademarks.

United Grain Growers will not use the JSR breeding stock in genetic research activities, said Roy Poage, president of Dekalb Swine Breeders, a subsidiary of Dekalb Genetics Corporation.

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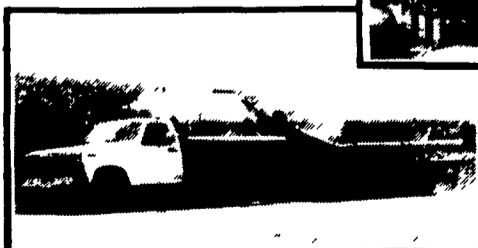
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