HICO HOFIGE

Camel's Milk: An Alternative Food in Arid Lands

TUCSON, Ariz. — Camels may not win beauty contests, but they take high honors for their adaptability to some of the earth's harshest climates.

One-humped camels, or dromedaries, for example, have been serving the desert-dwellers of Africa and the Middle East for thousands of years, building a legendary reputation for toughness and endurance as "ships of the desert."

Now, if an Israeli physiologist has his way, one-humped camels will become an important factor in reducing mass starvation in these drought-plagued regions.

How would they do it? With their milk, says Dr. Reuven Yagil, a member of the health sciences faculty at Ben-Gurion University of the Negev in Beersheva.

Self-Sufficient In Drought

"Camel farming is one of the ways that will make farmers self-sufficient in time of drought," Yagil and co-author Z. Etzion wrote in a paper presented to an international conference on arid lands.

While emphasizing that camels should co-exist with, not replace, traditional animals such as cattle, sheep, and goats, "during periods of drought they will be the mainstay of food production," they wrote. Look at all camels have going for them:

- Even when drinking water is scarce and brackish, camels continue to produce highly nutritious, vitamin-filled milk. In the driest weather, camels' milk production remains high enough to "keep numerous people alive."

— When "fodder is minimal and spread over a vast area," camels get enough to eat. They are browsers that wander as far as 30 miles a day and eat almost anything, including thorny bushes. "I call it natural pruning," Yagil said in an interview. And unlike cows, sheep, and goats, camels relish salty desert plants.

— Camel milk stays sweet for a long time. "Whereas milk of most mammals sours within days, even when kept in a refrigerator, camel milk remains virtually unchanged after three months of storage."

Despite all these advantages, however, camels have an image problem: They've traditionally been a milk source only for nomadic tribes, and they're viewed as a throwback to more primitive, unmechanized times.

Contrary to their reputation as wanderers, Yagil said, camels prosper in stalls. He's been experimenting with penned-up camels for 15 years. "The idea is that this could be a farming method for the thousands of people who have left farming and moved to the city looking for some kind of sustenance," he said.

Reproduce Slowly

Another negative factor has been camels' slow reproductive performance. Female nomadic

camels sometimes don't give birth until they are seven years old. But through the use of hormonal injections, the birth process has been speeded up by four years in stallfed camels.

Yagil, a consultant to the Food and Agriculture Organization and author of a new book on camels, said the FAO has set up demonstration camel farms in several countries, including the Sudan and Kenya, with more planned.

By next spring, using a "crisis

team," he hopes to present the FAO with the numbers and locations of milk camels in Ethiopia and other countries. Then he expects to send out demonstration teams to show reluctant farmers how effective camels can

And sometime in the future, Yagil said, he foresees solar-energy-powered camel-milking machines to increase the quantity of milk that will be distributed where it will do the most good.



Drawing by Pidgeon

Answers: 3915 epps 3791



1. Raccoon

2. Sparrow

5. Orangutan

6. Young newt

(a kind of salamander) _

3. Duck

4. Ant

When it rains, do you put on your boots and raincoat and go outside to play? Or do you race for shelter? Like people, some animals seem to enjoy the rain. Other animals look for nature's "umbrellas." Here's a neat quiz on where animals go in the rain.

Write the letter of the right answer in the blank space next to the animal's name

- a. heads for its burrow
- **b.** usually takes shelter in its den
- **c.** may come out into the rain from under a rock or log
- **d.** usually keeps floating on open water but may tuck its head next to its body and go to sleep
- e. tries to find shelter in a leafy tree
- f. may break off a leafy tree branch and use it as an umbrella



1. BLACK 6. PINK
2. RED 7. GREEN
3. YELLOW 8. LT.BROWN
4. BLUE 9. LT.BLUE
5. BROWN 10. LT.GREEN

REDWINGED BLACKBIRD
THIS IS AN UNUSUAL BIRD.
NO OTHER BIRD RESEMBLES
THE MALE WITH ITS RED
SHOULDER PATCHES WITH
BUFF DECORATIONS. THE
FEMALE IS A DUSKY BROWN
WITHA HEAVILY STREAKED
BREAST. THE BLACKBIRD
NESTS IN REEDS AND
CATTAILS FOUND IN POND
AREAS.

