THE NEWS-JOURNAL PAGE 4, SECTION II Chickens Bred Without Feathers

In Search For Cheaper Dinners

Featherless chickens are nervous birds, but they might mean cheaper dinners.

Raising chickens without feathers eliminates one step in processing the birds for market. And since a fourth of the protein in a broiler goes into its feathers, a nude bird would yield more meat.

Research into featherless chickens began in 1953 when Ursula Abbott, a professor of bird genetics at the University of California at Davis, found one in a batch of chicks she had ordered from New Hampshire.

Since then, scientific breeding has produced hundreds of the genetic freaks, the National Geographic Society says. Entire flocks in laboratories wear only an occasional wispy feather.

But there are several reasons why none of the smooth-skinned birds have appeared on supermarket shelves. Whether from embarrassment or whatever, the denuded fowl are extremely nervous and prone to develop stomach ulcers.

Without their protective coats, they also are susceptible to chills. Their feathered brethren can survive even freezing weather, but naked chickens shiver if the henhouse temperature dips even slightly.

"They get so miserable that they

stop eating and simply waste away." reports Dr. Ralph Somes, Jr., who is studying the mutants at the University of Connecticut.

Although pre-plucked broilers could save processing costs, the birds use up so much energy rushing about trying to keep warm that they eat more than other chickens their weight.

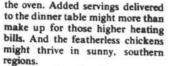
Any profits to be made from featherless chickens are further reduced by the added cost of the fuel needed to keep their quarters adequately heated.

But the strange-looking birds may have a future. Scientists are experimenting with economical methods of fattening them for marketing.

At the University of Maryland, Drs. Max Rubin and Daniel E Bigsbee have found that under the right temperatures feed bills for featherless chickens need not be higher than for ordinary birds.

When slaughtered, the featherless birds weighed up to six percent more than conventional chickens fed the same test diet. When cooked, the mutants provided up to 16 percent more meat.

The researchers believe that because denuded chickens are more energetic they develop less fat, which leads to less shrinkage in



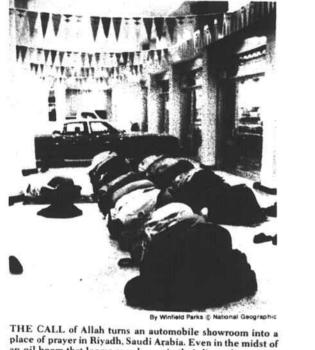
Science has drastically altered poultry raising before. As late as 1934, more than 90 percent of the chickens on American tables were former layers, slaughtered after their egg production declined. Chic ken was a costly meal reserved for holidays and special occasions.

Today, chickens are specially bred to be layers or broilers, raised in "factories" on assembly-line feeding for quick results. A chicken dinner now is an inexpensive meal.

In 1973 a four-legged chicken was hatched near Indianola, Iowa. Someday, scientists may turn their attention to this phenomenon, for the benefit of drumstick-lovers everywhere.



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an oil boom that looms ever larger in their lives, these Moslem faithful take off their shoes, unroll their prayer rugs, and kneel devotedly toward Mecca at sundown. Magic Wand Of Money Transforms Arab Lands

The once-poor and still littleknown lands of the Arabian Peninsula are riding a magic carpet of petrodollars to undreamed of prosperity and influence.

To many they symbolize a world turned upside down, in which formerly destitute desert sheikhdoms threaten the prosperity and power of the industial nations.

Following a three-month journey to the oil rich states around the Persian Gulf, author John J. Putnam attempts to answer three vital questions in the October National Geographic: What are the Arabs doing with their money? Who are the decision makers? complaint is never lodged against Sheikh Rashid, ruler of Dubai. The local telephone directory lists a dozen numbers where he can be reached, including one for the royal bedchamber.

Like his neighbor Zayid, Rashid has transformed a former fishing settlement into a thriving boom town.

"Today," writes Putman, "Dubai is a modern city with every amenity, perhaps the loveliest of Gulf cities. Dhows line the harbor, taking on goods for Iran, Pakistan, India. Old Persian houses thrust square wind towers into a Canaletto sky... There is in the air, in the sound of voices, in the faces and strides, a pleasantness and ease seldom matched in the Gulf."

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What can be expected of them?

Smaller states on the Arabian Peninsula seem to have been transformed almost overnight by the oil boom. In Abu Dhabi, once just a cluster of fishermen's houses and an old fort. Sheikh Zayid has been spending millions paving, planting, and raising a modern highrise metropolis.

Like a great suction pump. Abu Dhabi's wealth has drawn in workers from poorer lands: Pakistanis to lay concrete blocks for new office buildings. Indians to man offices and hotels. Baluchis to dig ditches, Omanis and Yemenis to drive cars and trucks.

They are joined by a number of other nationalities, including Americans and British who staff the oil companies and rigs. Foreigners now comprise two-thirds of the sheikhdom's 140,000 people.

Not all the money is spent at home. Overseas investments are crucial, for Abu Dhabi has little hope of providing for the nightmare every Persian Gulf state fears -- the day the oil runs out -- except through income from wise investments in other countries.

Some claim the frantic activity in Abu Dhabi has made Sheikh Zayid less accessible, but the same Unlike some of its neighbors, Dubai prospered even before the oil boom through a lively exportimport trade and a deepwater port. The sheikh still encourages trade by allowing importers 20 days' free warehouse storage and charges only a moderate fee thereafter.

Per capita, Dubai is today among the world leaders in external trade -- \$28.000 of trade per man, woman and child a year.

Sultan Qabus of Oman, like Zayid of Abu Dhabi, came to the throne when a predecessor, his father Sultan Said bin Taimur, was unable to handle the problems of increased wealth and demands for change.

Qabus quickly set about coming to terms with the 20th century. In 1970 the country had only three schools, all male: today there are 176, including 47 for girls and 31 coeducational. In 1970 there were three hospitals, today 15: in 1970, six miles of asphalt-surfaced road, today 335.

As one Arab minister sums it up: "Nobody cared about us before the oil came, nobody will care about us when it is gone."