

PEANUTS, POPCORN

Arizona Farmers Look

By Lorraine B. Kingdon

In Arizona, it's not what you can grow, it's what you can sell. Given a market, growers in this state can produce anything from apples to zucchini. In fact, they are.

Of course, cotton is still king. In 1985, 415,000 acres of cotton produced a crop valued at \$311.4 million, according to the Arizona Agricultural Statistics Service, Phoenix.

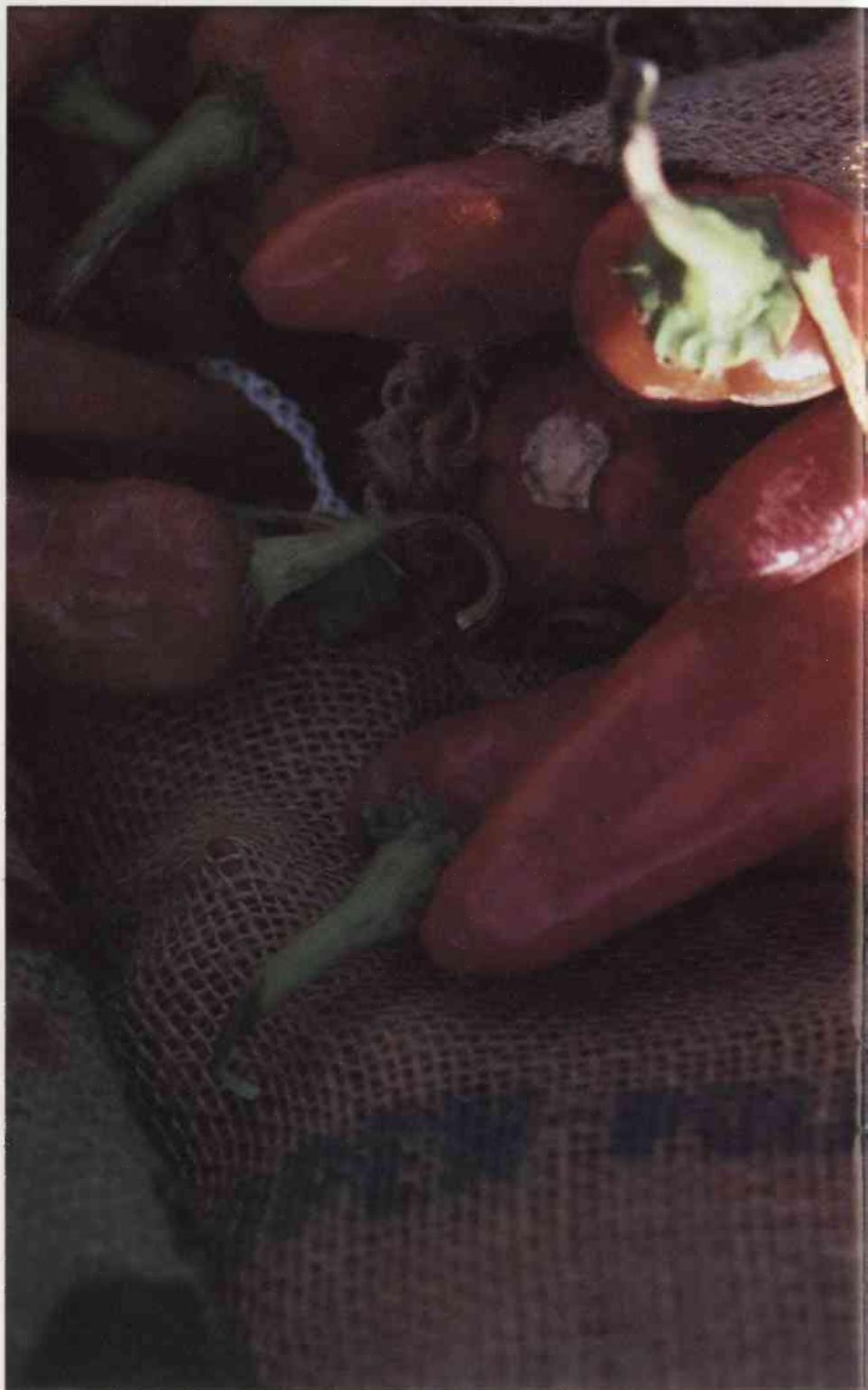
In 1986, the acreage of upland cotton went down, the yield may set a record high and the price is setting an all-time record low, says Sam Stedman, UA Extension cotton specialist.

Using less than one-fourth the acreage, vegetable growers earned two-thirds as much as cotton growers, before government payments.

Compared to those statistics, vegetable growers planted only 94,000 acres of vegetables, including grapes, but their crops were valued at \$204.5 million in 1985.

In other words, using less than one-fourth the acreage, vegetable growers earned two-thirds as much as cotton growers, before government payments.

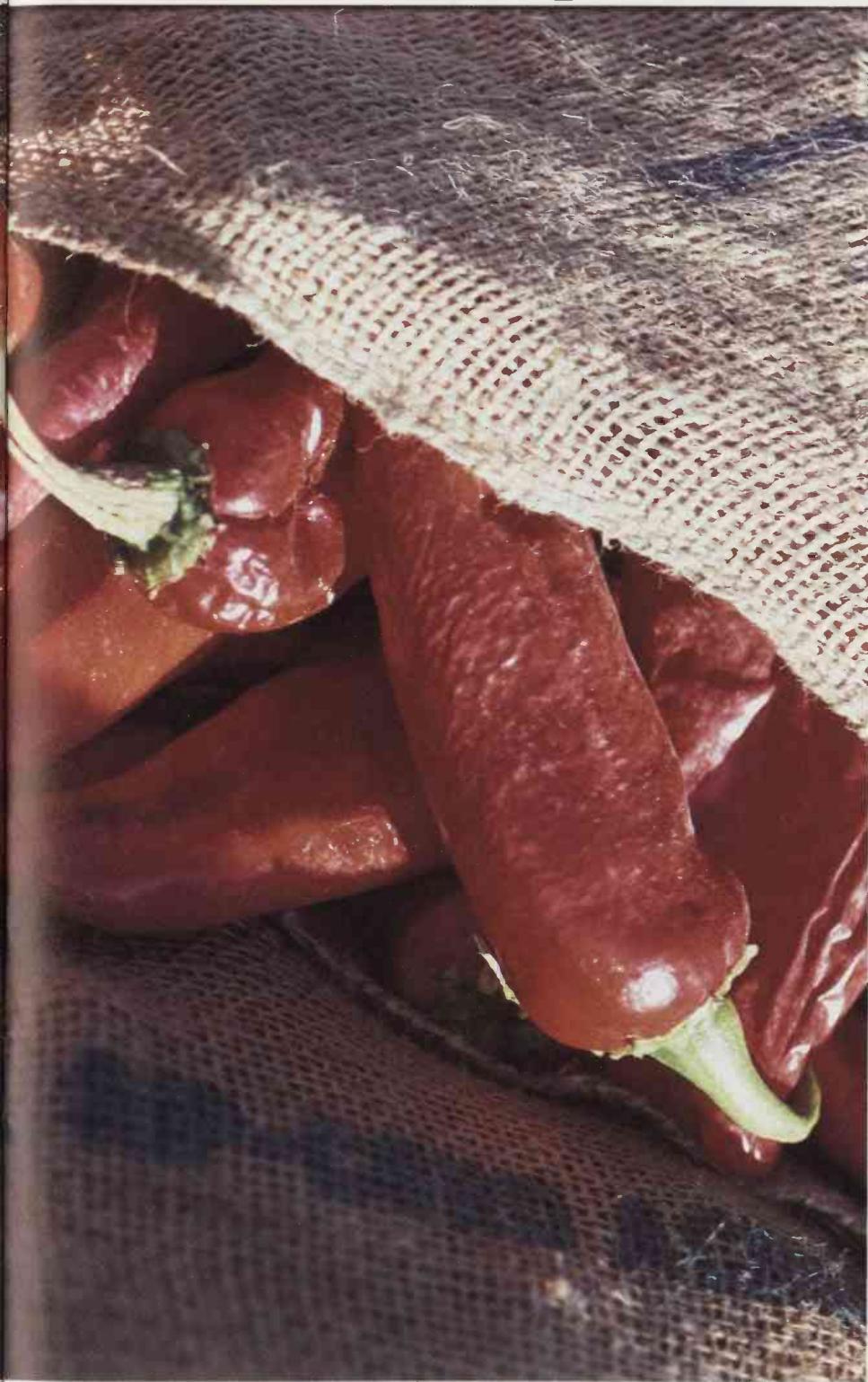
Efficient use of water is a big issue in Arizona, and one that won't go away. Here, vegetable growers have an advantage over many other farmers. "Vegetable growers can use one-fifth the acreage and one-fifth the water for the same profit as other growers — if



ALLAN FERTIG

... AND PEPPERS

to Alternative Crops



Cochise County chile peppers.

they can find a market," says Dr. Norman Oebker, UA vegetables specialist.

No wonder cotton growers are looking longingly at vegetables as one of the alternatives to the "king." "No one recommends planting all cotton acreage to vegetables, but there may be an opportunity to diversify some acreage and nudge some growers' incomes into the black," says Richard Gibson, Pinal County Extension agricultural agent with the UA. Cotton growers aren't the only ones trying to diversify. Although vegetable growers concentrate on producing such crops as lettuce, cauliflower, potatoes, cantaloupe and broccoli, their total crop list includes at least 37 different fresh vegetables.

The Hunsdon family, north of Willcox, have tried most of the 37, and perhaps a few nobody else has thought of. They own 80 acres and lease another 80; when they moved from Maricopa seven years ago, Julie and Corey decided to try specialty crops.

Some were successes; some failed. Black-eyed peas and mung beans shattered when the Hunsdon's tried to harvest, for example.

On the other hand, their five-acre pick-it-yourself garden is a time-consuming, but profitable success, Julie says. Customers come from Tucson and Green Valley, almost 100 miles away, to pick tomatoes, okra, broccoli, cauliflower, cabbage, green beans, zucchini, chili and bell peppers. And, they can buy fresh, Hunsdon-picked sweet corn, cantaloupe and watermelons.

Hunsdons tried one acre of ornamental corn this year but gave up on pumpkins after a three-year battle with a soil-borne fungus that caused a devastating rot just a few weeks before harvest. Dr. Deborah Young, Cochise County agricultural agent for the UA, identified the fungus as *Phytophthora capsici*, one that attacks cucurbits.

Despite the new problem caused by the fungus, county growers have put

in approximately 200 acres of pumpkin, Young says. The entire crop has to be sold in the two weeks just before Halloween, or it's not sold at all — a gamble that's typical of those that vegetable growers run.

Vegetables are a different ball game, Oebker warns. "Vegetables need minute attention; every plant makes a difference and has to be cared for. Yet, there's no price guarantee," he says. Cotton growers are used to worrying about growing a crop; when they raise vegetables they have to plan how they're going to sell it before they even plant.

Next year, Julie Hunsdon says they're considering a strawberry patch,

particular special vegetable really well," Oebker believes.

A new niche is just beginning, says Marvin Butler, Yuma County Extension agricultural agent. The brokers who buy vegetables from growers are responding to supermarket demands for mixed loads. That is, supermarket buyers want a mixture of vegetables in the same semi-truckload.

Vegetable growers are more likely to be able to make a profit on the so-called minor vegetables — everything from bok choy to radicio, Dikon radishes to Napa cabbages.

Vegetables aren't the only alternative crops. In Yuma County where

"The people who'll succeed are ones who find a niche in the marketing chain and concentrate on growing a particular special vegetable really well."

or maybe grapes, or elephant garlic or blue corn. Whatever the far-traveling customers want.

The more exotic vegetables offer a risky opportunity. Profits can be considerable, but they can turn into losses quickly if growers can't find a market or if too many other growers have the same idea, thus producing an oversupply.

In 1984, 2 acres of garlic were worth \$1,000 to somebody; in 1985, 370 acres of garlic made \$99,000. How much garlic can growers sell?

Other exotics included 761 acres of rapini worth \$1.8 million, 131 acres of parsley valued at \$540,000, 282 acres of radishes worth \$641,000 — and a few acres of beets, endive, escarole, spinach, turnips, rutabagas, and even leeks. A few growers like Ralph Wong, Marana, are growing Oriental vegetables for a very special market (see box).

"The people who'll succeed are ones who find a niche in the marketing chain and concentrate on growing a

water prices are lower, a few farmers are diversifying into producing seeds as a highly specialized crop. Others are raising peanuts or sesame.

Not that peanuts are a brand new crop in the area, says Barry Tickes, UA Extension agricultural agent in Yuma. For the last 30 years or more, approximately 600 acres of peanuts have flourished. In 1984, the acreage zoomed to 3,000 acres and went even higher in 1985.

Predictions were optimistic; perhaps the acreage in peanuts would go as high as 20,000 acres. However, in 1986, politics intervened, says Jerry Didier, Yuma peanut retailer and president of Western Peanut Growers Association. Government peanut allotments traditionally go primarily to growers in the Southeast, with a very limited allotment for Arizona.

In 1986, acreage in Yuma County dropped to approximately 1,100 acres, Didier says. Didier believes the area can produce quality peanuts, and that there could be a market for them along

The Wong

"Ideally, I'd like to farm less than five acres and make a good living off of it."

MARANA — Ralph Wong is an independent thinker, a commodity he thinks is in too short supply in agriculture.

While most farmers still think in terms of "bigger is better," Wong says, "Ideally, I'd like to farm less than five acres and make a good living off it."

He's still a cotton grower; most of the 5,000 acres he owns is leased out and planted to cotton. But Wong is concentrating on the 700 acres he has converted to vegetable growing.

It's not easy. "I've been in the area since 1940. I'm working three times as



ALLAN FERTIG

Way

hard, but sometimes I feel I'm not getting anything done. Nothing I learned still applies," Wong complains.

He's tried melons, lettuce, Mexican white corn for tamales, chili peppers and he's interested in carrots and pumpkins. He sells Oriental vegetables to local restaurants — bok choy, gai toy, Chinese broccoli and flowering cabbage, for example.

Dr. Norman Oebker, UA vegetables specialist, gets frequent calls from Wong, often asking how to raise yet another new vegetable. "One day, he wants to know about bok choy and the next it's bamboo shoots," Oebker laughs.

Hand harvesting is fine with Wong, but machinery for planting is a problem he hasn't yet solved. It should be possible to re-tool old machinery designed for other purposes, he believes.

"In today's agricultural economy, I don't buy new machinery. I can always get used farm machinery from farmers who are going out of business. Sad

when you think about it," Wong comments.

He believes hand harvesting vegetables will be around for a long time. "Four or five men can harvest more than we need to ship in a day. A lot of crops allow local people to have jobs."

Wong has definite ideas about farming in the future. "Crops will have to have a shorter life cycle, so they'll use less water. Perhaps a rotation of monocot and dicot plant types will break the disease cycle. We have to get a high return for every square foot of dirt with a low energy input for equipment and fuel," he muses.

Electrical and mechanical engineers are on his staff because Wong firmly believes that high-tech is going to help farmers stay in business. For one thing, Wong and his staff are trying to invent a new irrigation process that costs half as much as drip and works on a flood irrigation basis.

They've designed fields — which may sound strange, but that's exactly what Wong has done. The field has

both a 600-foot irrigation run for vegetable cultivation and a 1,280-foot run for cotton. The design will also work for water harvesting, Wong says.

Another small field is a prototype of an easy-labor irrigation system that could be computerized with little difficulty. The field is long and narrow; the water floods across the narrow direction so crops at both sides get an equal amount of water. But, the field can be cultivated up and down the full length for more efficient machine operation.

Wong says he will consider any crop that might fit into his profit-making plans. He's looking at hydroponic cultures; perhaps, he says, he could use a system of recycled water filtered through watercress to raise fish. He's growing several acres of Aleppo pines to be used on golf courses; when they're four years old, he'll sell off all the trees at the same time for a once-over harvest.

Wong sums up all his ventures. "I have the land and the resources. I'll give it one hell of a fight before going under."

— Lorraine B. Kingdon



Chinese cabbage is one of Ralph Wong's specialty crops.



Photography By Allan Fertig



the West Coast from Seattle to San Diego. "But, peanuts are highly political. They won't go anywhere until we settle the argument with the Southeast," he says.

The problem with peanuts as an alternative crop is neither growing them nor selling them. In this case, it's the government.

Sesame seems an ideal crop, just designed for Yuma's climate. It thrives in heat, needs little water or fertilizer, and at least so far, is undamaged by insects.

In 1985 and '86, growers planted 8,000 acres of sesame, almost all in Yuma County, and harvested 9.2 million pounds of seed for a crop valued at nearly \$2.8 million (in 1985). Sesaco Corporation, Yuma, markets the Arizona crop for use as whole seeds; 40 percent goes to Japan.

Sesame, itself, is one of the oldest cultivated crops in the world, dating

Sesame is one of the oldest cultivated crops in the world, dating back at least to 2500 B.C.

back at least to 2500 B.C. When Derald and Ray Langham started Sesaco, they concentrated on breeding sesame varieties adapted to Arizona conditions and American-style agriculture, particularly machine harvesting.

The first varieties, from tropical Venezuela, grew 15 feet tall in the Yuma sunshine, making it too large to machine-harvest. Commercial varieties now top out at 6 to 7 feet. Developing shatter-resistant seeds has been a top priority; some early varieties used to drop as much as 80 percent of their seeds on the ground, inaccessible to the harvesters. Sesaco still has 160 acres of experimental plots where approximately 6,000 sesame varieties are being tested, Ray Langham says. UA researchers are working on weed controls, growth regulators and insect studies.

Grapes for the fresh market are another crop that's been around a

while in Arizona. According to the Arizona Agricultural Statistical Service, the state's grape acreage steadily declined in the 1970s, but began to rebound starting in 1982.

By 1986, acreage had more than doubled since 1981 to 6,328 bearing acres of grapes. The major varieties are Thompson seedless, Perlettes and Flame seedless, produced in Maricopa County near Phoenix, around Yuma and Hyder in Yuma County, and in the Willcox district. In 1985, the value of the grape harvest was nearly \$18 million.

Of course, there are other alternatives for Arizona farmers. Some show considerable promise. For example, many of the people pouring into Arizona cities are going to want trees and shrubs to landscape their new yards. Sod to green up their lawns will be in demand, too.

Office complexes and shopping centers will need landscapes designed, and plants to fill up those landscapes. Nursery plants have to be grown somewhere.

Plan carefully before making a change; that's the advice from Dr. Russell Gum, UA agricultural economist. Make a feasibility study. Determine possible markets, costs, availability of transportation — all the wide array of factors that will influence possible profits. Do a risk analysis, he suggests.

The computer makes all this "what if" analysis practical, Gum says. After all, even gamblers like to know the odds. 

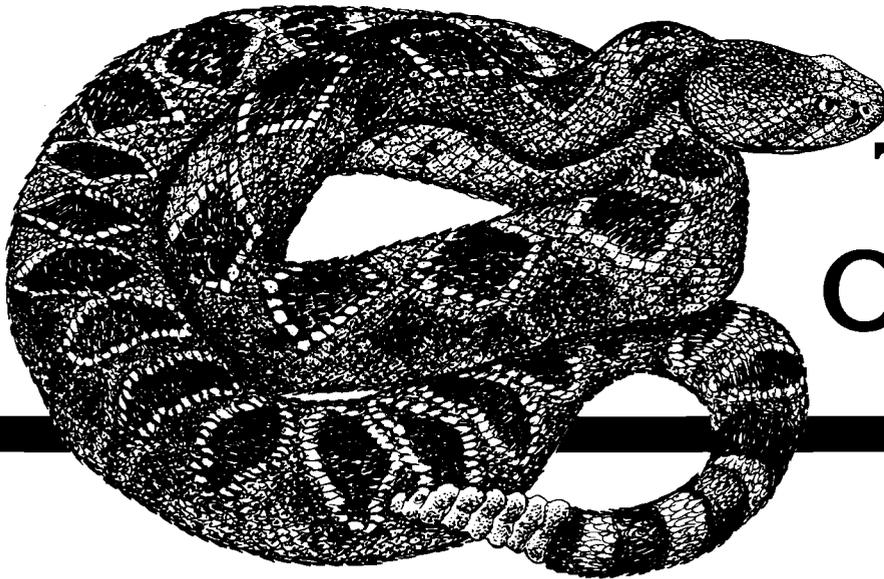
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GUY WEBSTER

(opposite-clockwise) Peanuts, popcorn, and sesame along with grapes make up a partial list of Arizona's alternative crops.

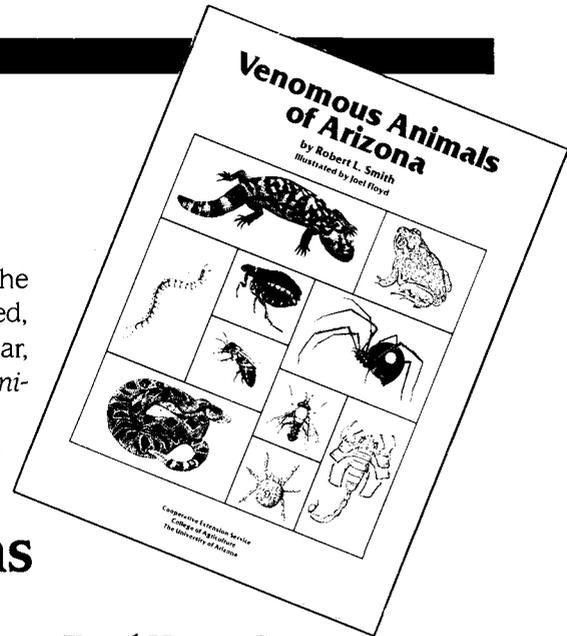
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