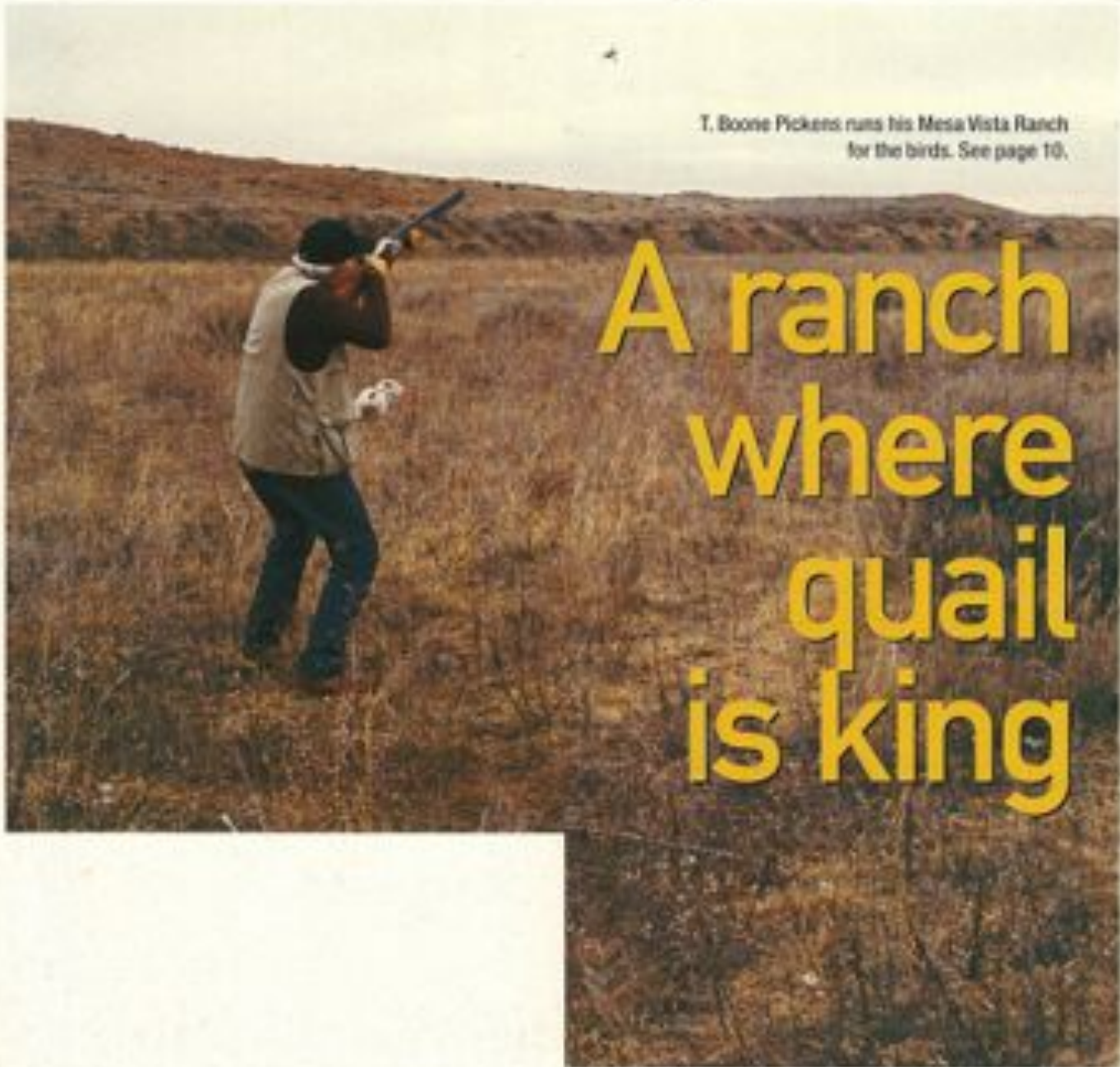


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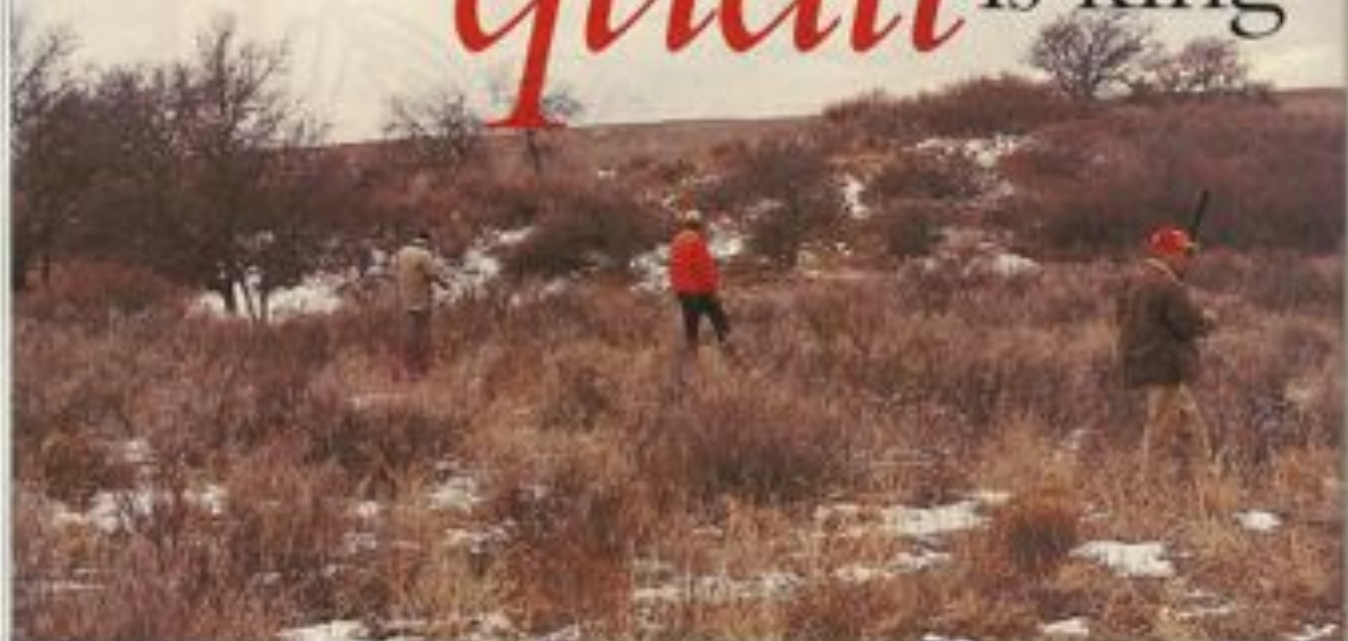
FEBRUARY 2002



T. Boone Pickens runs his Mesa Vista Ranch
for the birds. See page 10.

A ranch
where
quail
is king

A ranch where *quail* is king



Boone Pickens runs his Mesa Vista ranch for the birds. ■ By Alan Newport

On Boone Pickens's Mesa Vista Ranch north of Pampa, Texas, bobwhite quail are more important than cattle. In fact, they are the reason the ranch exists.

In a year when quail populations across Texas, Oklahoma and Kansas are down dramatically, Mesa Vista Ranch still has a very good population. When the *Farmer-Stockman* visited the ranch in early January we saw nine coveys in two and a half hours. Other hunters that day had the same experience.

When snow was heavier on the ground a couple days before, the hunters said they saw 28 coveys in one day.

Oklahoma State University quail biologist Fred Guthery, whose graduate students are conducting a five-year research program on a portion of the Mesa Vista Ranch, estimates the quail population at 0.7 bird to one bird to the acre — an outstanding population

anywhere, but especially along the western reaches of the popular game-bird's range.

This seems to be a sustained population under current harvest and management practices, Guthery adds. His estimate of quail density suggests the ranch supports a population of 18,000 to 25,000 birds on its 25,000 acres. The annual harvest averages about 2,000, or from 8 to 11% of the population.

This is prime quail country, but Guthery says the way the ranch is managed undoubtedly helps the population flourish, keeping quail numbers higher than it would be under conventional ranch management.

GRAZING, CAREFULLY

One important facet of Mesa Vista's quail management is its method of grazing, explains Keith Boone, ranch manager. It is rotation grazing with a light stocking rate. Boone calls it "flash

grazing," but by some modern grass manager's terms it is a fairly slow rotation with rather light stock densities.

The ranch uses stocker cattle in the growing season only, and the number of cattle is varied depending on the available forage and their effect on the quail habitat. If the summer turns dry and the cattle begin to deplete the forage too greatly, they will be sold early. Adequate cover for the birds is the goal.

Last season, the 25,000 acres hosted only 1,300 stockers. Many years the ranch may carry up to 2,000 stockers. These typically are broken up into four or five herds. The average pasture size is about 2,000 acres. The largest pasture is about 3,200 acres, and the ranch also has several small "traps."

As an example of how the cattle are moved about, one group of pastures last summer supported 335 head, with most of the grazing periods lasting from three to five weeks. One 40-

are pasture last summer got only nine days of grazing.

This method achieves lighter stock densities than using the whole herd in the rotation and increases spot grazing, which increases weed production. On the other hand, it gives the ranch manager greater control over vegetation and greater ability to let the grass and the forbs regrow than he would achieve with continuous stocking.

EASY DOES IT

"Going into the quail season I want it to look like it's not hurt," Keith Boone says. "It's something that's hard to write down on paper. It's more of a look than anything else."

One of the things he gauges to

achieve that "look" is an average grass height of 3 to 6 inches at the end of a grazing period, and the development of a good supply of broadleaf weeds such as cotton and ragweed.

That type of goal indeed requires some averaging in his mind, since the light stock density and different habitat types in each pasture effects a variety of forage heights after being grazed for a few days.

In addition, Boone says he watches potential high-traffic areas such as earthen tanks and windmills. If these begin to show too much bare ground, the cattle are moved.

Furthermore, the grazing schedule and timing gets changed from year to year — and some pastures don't get

grazed at all some years.

"We're leaving behind five times the grass a cow guy would leave," Keith Boone says. "We're doing with cattle what a lot of biologists recommend you do with a disk."

He explains that the cattle thin the vegetation and cause disturbance, especially in the ranch's sandier soils. In turn, this encourages production of broadleaf plants which produce quail food for winter (seeds) and some open area at ground level for the birds to move. Some bare understory may be especially important for rearing chicks, which must be able to move about and catch insects in order to obtain the 28% level of protein they need.

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Shooting down old myths

Research on Mesa Vista Ranch is changing some ideas about how quail survive and reproduce, and may someday show how they are affected by one of the key research tools, the radio telemetry unit.

Myth: Bobwhites need bunchgrass. An example of these observations is the common belief that bobwhites in western areas strongly prefer bunchgrass, such as little bluestem, for nesting cover. This was indicated by several years of study on radio-packaged quail on the Packard Wildlife Management Area in western Oklahoma.

Yet the research by Oklahoma State University on Boone Pickens's Mesa Vista Ranch a little farther north and west is at least indicating a possible preference for sand sagebrush as a nesting site. In the summer of 2001, 17 of 23 nests made by quail with radio transmitters attached were in sagebrush.

Myth: Radio-packaged quail provide data about normal quail. Quail with radio transmitters attached on the Mesa Vista Ranch have managed about a 25% nesting success, which is considered about normal, says

Fred Guthery, researcher. However, observations by Guthery, his graduate students and others are raising the question just how much does the tiny radio package affect the quail?

Graduate student Bob Baker says the old rule of thumb may be inadequate. Based on old assumptions, wildlife biologists have for many years said it took seven days for a quail to acclimate to the radio transmitters.

The problem is, some studies are showing only about 5% annual survival of radio-packaged quail. When compared with a normal annual survival rate of 20 to 25%, that is unrealistic and could

be biasing the research, Guthery adds. In fact, Guthery's research team has begun calling the practice of summing quail with transmitters "radio hand-capping."

The transmitters' effect is still unproven, but the nesting success rate of these birds has been pretty low in otherwise good habitat. By mid-August, only five of 23 nesting attempts on the study area had been successful.

Myth: No shell fragments = snake. Each nest established by the radio-packaged birds is outfitted with a miniature camera while the bird is away from the nest. The activity of the quail and any other creatures which visit the nest is videotaped and logged.

The cameras have disproven a commonly held belief about nest predation. When a quail nest is broken up by a predator and no fragments of eggs left behind, many wildlife managers and researchers assumed it was a snake which swallowed the eggs whole. The mini-cams at the Mesa Vista nests have shown no matter what type of predator attacks the nest, shell fragments are seldom found. •



Research on the Mesa Vista Ranch has shown a potential preference by quail for nesting in sand sagebrush, with grass woven into a little "dome" over the actual nest. The researchers place tiny, remote cameras in front of the nest site to monitor occurrences.

Researchers like graduate student Bob Baker first check the location of quail to see whether they are on the nest before snaking in to set up a camera and other instruments.



Continued from page 11

Another important part of Mesa Vista's management plan includes water holes about every 1,000 feet paralleling the ranch roads for 40 or 50 miles. Some of the water holes are just dug down to the subterranean water level, and a few catch runoff from windmills, but most are shallow depressions into which outlets from a pipeline pour water the year through. The water is piped from two wells near the south end of the ranch.

This widespread water supply accomplishes a couple of different ob-



Feeders on the Mesa Vista are important primarily to hold the quail near roads and make them easier to hunt.



This is one of many water holes built throughout Mesa Vista Ranch — just a shallow depression with water running out of a pipeline. The flow is controlled by a valve and often protected from cattle by a piece of larger PVC over the valve.

jectives. Foremost in Boone's mind is the water supply for the birds. Like a fair number of western quail managers, he believes water may be a limiting factor for bobwhites this far west. He says he sees bobwhites at the water holes often in the summer.

The other thing the ranch's multiple water holes seem to do is help spread out the grazing pressure and the trampling pressure of the cattle, Boone suggests.

WHY FEEDERS?

Mesa Vista also sports nearly 300 wildlife feeders with a mixture of corn, milo and wheat, all placed in the edge of brushy thickets to give the birds protection coming to and from the feed. But Boone Pickens suggests the feeders are really there to draw the birds near the roads, making it easier for the hunters.

"The feeders aren't for the birds. They're for me," Pickens told Gathers. "Everything helps at 73 years old."

Additionally, it is clear the birds are using the feeders in the hard part of the winter. Keith Boone says as each winter wears on, the mix of grain in the birds' crops increases relative to the amount of native seeds. This winter it is the same.

Feeders and waterlines aside, it could be successfully argued the main reason the Mesa Vista Ranch has a lot of quail is because the management plan is designed for that goal.

After several years of droughty growing seasons across much of Texas and Oklahoma, there appear one major difference between these ranches with quail and those without: the link between grazing pressure and residual forage.

Those ranch managers who maintained ground cover in the form of grass and weeds have decent quail numbers, even if they are a little lower this year. Ranch managers who let their cattle graze off every blade of grass and stalk of weed seem not to have quail.

This example of Mesa Vista Ranch's success with quail seems to demonstrate what wildlife biologists have been telling resource managers for many years: If you want wildlife, you must first provide wildlife habitat. ♦

John Deere Dealers

See one of these dealers for a demonstration

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ALTUS Yates Impl. Co., Inc.	KINGFISHER P & K Equip., Inc.
ALVA Tri-K Equip., Inc.	McALESTER Roger Key Equip., Inc.
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