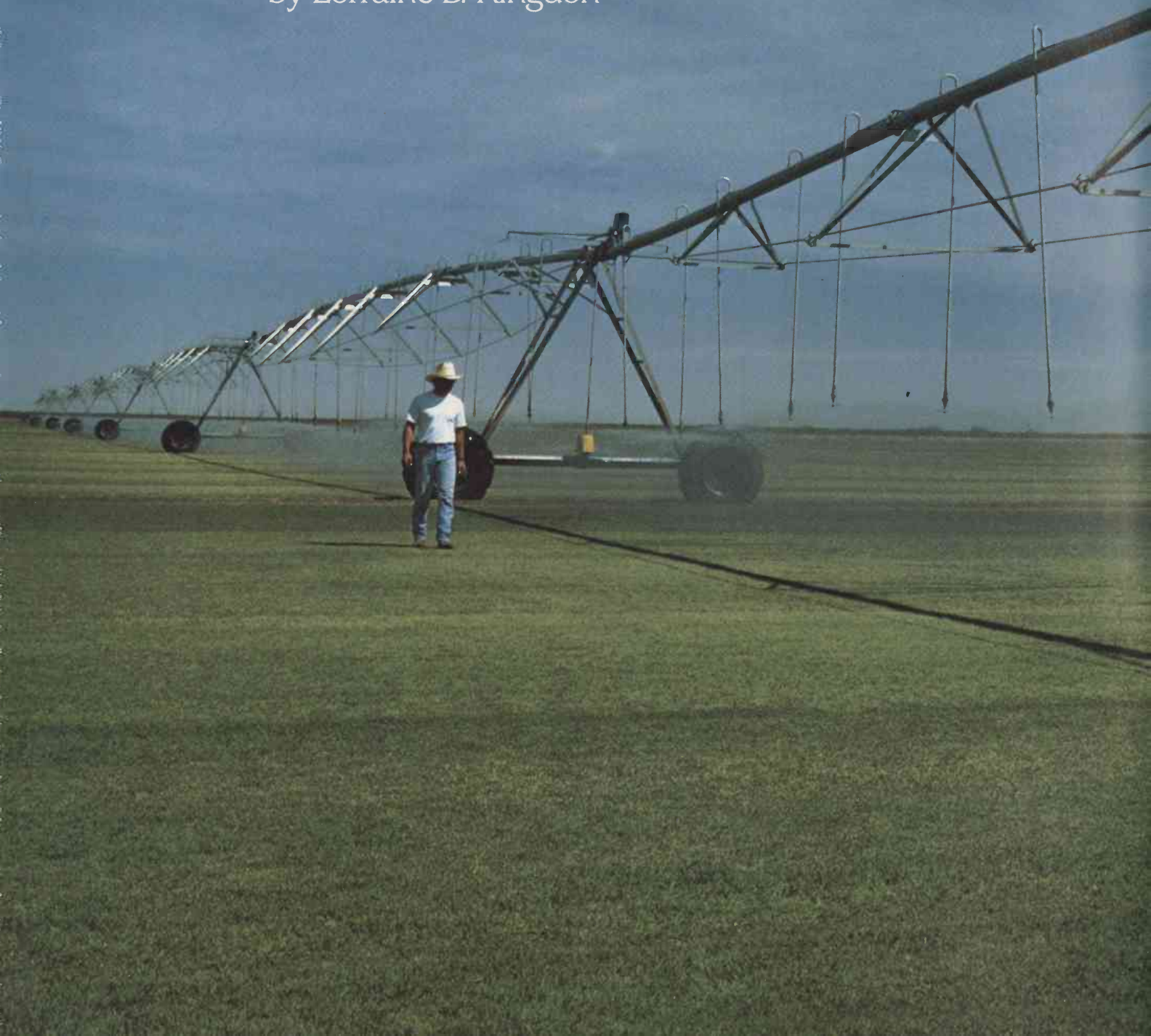
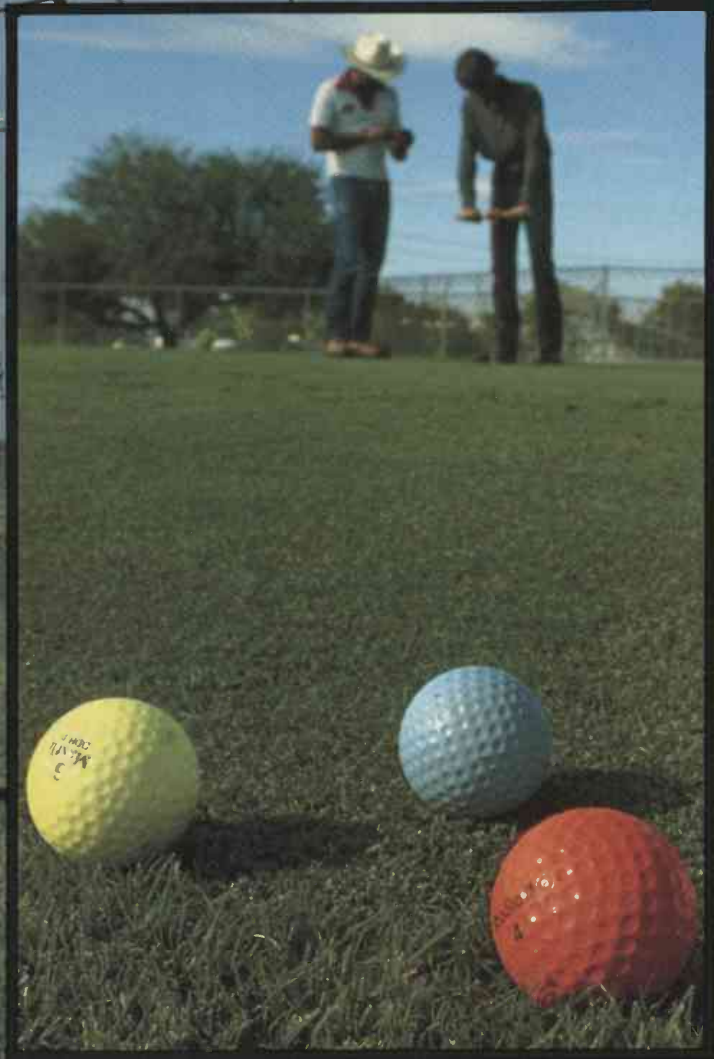


Arizona's New **SODBUSTERS**

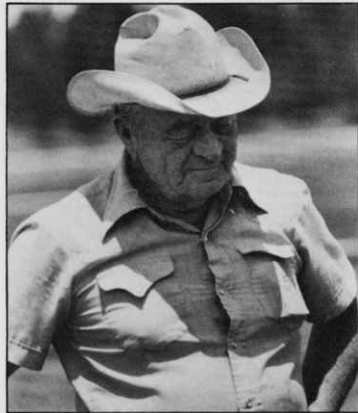
by Lorraine B. Kingdon





Foreman Allan Partain inspects the overhead irrigation system on Western Sod's 700 acre farm near Casa Grande. (inset) UA researchers Dr. Dave Kolpec and Dr. Charles Mancino inspect sod on an experimental golf green at the UA's sod research facility in Tucson.

“Bar-T-Sod” is the only sod grown north of the Mogollon Rim and the only Kentucky bluegrass sod farm in Arizona.



JIM CHENOWETH

*Ernest Chilson, managing partner
T-Bar ranch.*

From cowboy to sod farmer. And Bob Prosser, manager of the Bar-T-Bar Ranch, is pleased with the results.

On the ranch, Prosser runs 1,600 head of cattle and grows 40 acres of Kentucky bluegrass sod. “Bar-T-Bar Sod” is the only sod grown north of the Mogollon Rim and the only Kentucky bluegrass sod farm in Arizona. The grass is particularly suited to cooler temperatures.

It’s quite a change from riding the range, Prosser says—a change he’s excited about. Bar-T-Bar Sod has already sold 60 percent of the sod that will be produced this year. “Last year, we had only 20 acres of sod, and it took all season to sell 15,” he comments.

Next year, he plans to add another 30 acres of sod and extend his market to Sedona and the White Mountains. This summer, Bar-T-Bar Sod sold 1.5 million square feet of sod, 50 percent of it in Flagstaff, Prosser says.

The three-year-old sod farm is benefitting from the growing recreation industry in Flagstaff, as well as its increasing population, says Larry White, University of Arizona agricultural Extension agent in Coconino County.

Baseball, soccer and golf are all popular. In Flagstaff alone, 220 softball teams compete; 15 percent of the city’s 44,000 population play during the three-month season, White points out. That all adds up to a lot of carefully cared for sod, some of it from the Bar-T-Bar.

In fact, Arizona’s turfgrass industry is growing by leaps and bounds, says Dr. David Kopec, UA turfgrass specialist in Tucson. He says 1,500 acres are devoted to growing sod in the state, mostly between Phoenix and Casa Grande.

As one of the University’s two turfgrass experts, Kopec gets calls from golf course superintendents who want him to solve problems with watering, fertilizing and using chemicals. Developers call to find out how the water consumption of different grasses vary.

Bob Prosser called on him, too. UA specialists worked with Prosser to figure out the best blend of Kentucky bluegrass varieties. He plants a mixture of six that like the cool temperatures, tolerate low moisture and are resistant to such diseases as snow



Every day is harvest day during the summer at Western Sod near Casa Grande. In business since 1972, Western Sod today produces 20 million square feet of sod every year.



LYNN KETCHUM

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mold and dollar spot.

Even UA wildlife specialist John Stair was called in when elk found the tender grass hard to resist in the winter. Unfortunately, the elk left hoofprints in the sod that formed rips and holes when the sod was harvested.

Stair devised a double row of electric fencing that harmlessly teaches elk to go elsewhere. "Now if we could just fence out the geese that fly in by the thousands in the fall and tear up the sod," Prosser complains.

Harvesting sod requires special equipment that is only manufactured in Canada, says Tom Holmquist, sod farm manager. The cutter blades adjust automatically to cut a precise 18-inch-wide strip that feeds into a conveyor belt which wraps the sod into a five-foot-long roll.

Once loaded on a wooden pallet, the turf is ready to be trucked to a new baseball diamond, soccer field or somebody's bare yard—instant green from a cattle ranch high in the moun-

tains of Arizona.

The Dean of the UA College of Agriculture, Bartley P. Cardon, has predicted that 70 percent of all agriculture in the state will, someday soon, be related to turfgrass and horticulture.

The people responsible for maintaining the landscaping in public parks, apartment and townhome developments, office building complexes and cemeteries are in the business of agriculture, even though they probably don't think of themselves as "farmers."

Yet, golf courses are farms, Koepke believes. In Arizona, their "crop" of closely-clipped green grass is worth just as much as traditional crops, plus livestock.

Tourists brought approximately \$40 billion into the state in 1984; the Arizona Golf Association estimates that 10 percent, or \$4 billion, went to hotels and resorts featuring golf courses.

Revenue from golf courses, nurseries and equestrian activities equalled \$1.7 million in 1985; crops plus livestock earned \$1.65 million. The University of Arizona is currently involved in a survey to evaluate the economic impact of just the golf course industry.



LYNN KETCHUM



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Each of the state's 189 registered golf courses spends approximately \$750,000 each year to keep the grass green, clipped and healthy, Kopec says. No wonder he believes good course superintendents are good farmers.

Professionals responsible for caring for large areas of grass in parks and golf courses are very concerned about proper irrigation schedules. Kopec is using new technology to measure how the turf reacts to being stressed by various levels of irrigation.

He believes chemicals will be available someday to help improve the efficiency with which plants use water by altering their hormone balance.

"Water is a chronic problem grown acute," Kopec says. Water conservation is very much on the minds of everyone in the turfgrass industry. For example, Kopec says golf course people take great pride in using only the amount of water needed.

Golf courses, and perhaps other large users of turfgrass, will tend to use effluent, treated water from city sewage systems, wherever possible, Kopec says. Some are experimenting with tailwater from mines.

Of course, homeowners are interested in keeping their lawn-watering to



LANN KETCHUM

Kopec believes strongly that turfgrass is beneficial. He says grass lowers the temperature in urban environments and absorbs pollutants and noise. Grass is a source of oxygen.

a necessary minimum, too. That's where the problem lies—what's necessary? and what's the minimum?

In conjunction with Western Sod, Kopec has developed a lawn watering guide for the southern Arizona desert based on seven years of data gathered by Dr. William Kneebone, UA plant scientist. Dr. Ian Pepper, UA soil scientist, collaborated on research using effluent.

The guide's directions for watering are correlated with the daytime high temperature. Kopec says the pamphlet will help people become aware of water conservation because it teaches that they don't need to water daily. The Arizona Municipal Water Users Association has printed more than 100,000 copies and is offering the guide through the water bills sent in Phoenix, Chandler, Glendale, Mesa, Scottsdale and Tempe.

Some desert-loving Arizonans would say, "Why worry about grass? Let's go back to natural desert vegetation." But Kopec believes strongly that turfgrass is beneficial. He says grass lowers the temperature in urban environments and absorbs pollutants and noise. Grass is a source of oxygen. And the aesthetics of green, cool-looking grass are undeniable. **lp**

(Far left) UA turfgrass specialist Dr. Dave Kopec and Dr. Charles Mancino test golf ball speed on an experimental green in Tucson. (Upper left and near left) Kopec and Mancino work at grass level when they study water consumption of various turfgrasses.