

# Cultivating Our Garden

By Arthur H. Beattie

**"EDITOR'S NOTE:** This is fourth and final portion of Dr. Beattie's beautiful address to the national honorary society for agriculture, Gamma Sigma Delta. Like the previous portions, this is an entity unto itself, and can be so enjoyed.

A little reading in the background of this land of ours informs us that the Papago did not wait idly for the summer rains to come. Under the direction of the medicine man, he participated in bringing them through the most important religious ceremony of the year. The Papago was an abstemious man, who carefully shook out and gathered the seeds of wild grasses and the beans of the mesquite bush.

The cactus of the desert, roasted under a fire, provided food for him. Fermented drinks (until the white man's example taught him otherwise) had no place in his life except for the annual rainmaking ceremony. It was not men such as these that Isaiah cursed, saying, "Woe unto them that are mighty to drink wine, and men of strength to mingle strong drink."

Like the cities of the Hebrews, after the years of wandering, Southern Arizona has known its share of "men of strength to mingle strong drink," but this was not true in the days when the Papago possessed the land. Drinking the fermented liquor made from the saguaro was reserved for the lengthy ceremonials whose object was to bring the summer rains.

These ceremonials offer an excellent example of the effective use of magic. The saguaro fruit did not ripen until the necessary heat to bring

the summer rains had developed, and the fermenting of the liquor required the higher humidity which is a forerunner of the rainy season. Thus the rituals were regularly successful, for normally the rain followed closely upon their performance. For magic to work, it must, of course, be closely tied to natural forces.

## Biblical Range Wars

The Papagos, before the coming of the white man, were not herdsmen. Today, however, Indians and whites raise cattle in our region. In a land of scant rainfall and sparse grass, vast areas are required for the grazing of flocks and herds, and the danger of overgrazing is a constant one. The most popular folk entertainment of our day — the TV Western — depicts with keen delight the gunfights of cowboys, but rarely suggests the underlying problems of the shortage of water and the necessity of preserving the range from overgrazing.

This, too, was a problem familiar to the Hebrews of patriarchal days. We who know the rangelands of the Southwest find understandable and enlightening the quarrels between Abram's men and those of Lot, and the separation of the two parties. "And Abram was very rich in cattle, in silver and in gold. And he went on his journeys from the south even to Beth-el. And Lot also, which went with Abram, had flocks, and herds, and tents. And the land was not able to bear them, that they might dwell together. And there was a strife between the herd men of Abram's cattle

and the herd men of Lot's cattle. . . . And Abram said unto Lot, "Let there be no strife I pray thee between me and thee, and between my herd men and thy herd men; for we be brethren. Is not the whole land before thee? separate thyself, I pray thee, from me; for if thou wilt take the left hand, then I will go to the right; or if thou depart to the right hand, then will I go to the left."

## "... Do Not Stagnate"

Reading for most of us makes the greatest single contribution toward the development of a full and rich inner life, but of course the arts are important also, and in the cultivation of our garden must not be neglected. The important thing is that we not stagnate, that we not content ourselves with a mere animal, or even vegetative, existence.

At times we may admire, even envy, the apparent placidity of certain animals. On that chill Visitors' Day on the campus I watched the magnificent, heavily meated Herefords put on display outside the west wall of the Student Union. That they had more dignity than many of the people who stopped to chatter around them, that they enjoyed a greater calm, was certain. Yet these were creatures bred to produce the greatest possible quantity of high quality beef for our tables.

Their placidity is a result of an absence of thought, of any concern for the world about them, that it would be folly for us to seek to emulate. Discontent is one of the most important traits of human nature; without it there would be no striving for improvement, no cultivation of our garden, no progress.

Walt Whitman in "Song of Myself" writes a fascinating passage expressing envy of the animal's lot. I think of it often, for the bovine life has a strong appeal, and there are in the verses in question certain phrases  
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tests depending on soil moisture conditions. In these tests, the petroleum emulsion had been applied at 70 to 80 gallons per acre in 8-inch bands on 40-inch centers. Plantings were made "to a stand" with no subsequent chopping. Some difficulty was experienced in maintaining proper seed depth. Germination was not good where seeds were shallower than 1-inch, but deeper placement was felt

to be practical under petroleum emulsion because of the soil temperatures developed.

In 1965, field tests were again made in cotton, and included strip-tillage, petroleum-emulsion, and strip-tillage with petroleum-emulsion as compared to conventional seedbeds. Also included were tests of planting depth under emulsion. These tests were conducted near Phoenix. Very early plantings were also conducted near Wellton on March 7. A fair stand was obtained although rows were overirrigated and two rains followed

which left soil in hard and cracked condition. A poor stand resulted from the germination on conventional seedbeds.

Our table shows results of four plantings in 1965 and indicates better stands with petroleum-emulsion applications and for strip-tillage mulched rows compared with non-mulched. The last planting (April 21) resulted in no advantage to the emulsion application as soil was sufficiently warmed to germinate seeds in all treatments.

# Bird-Tolerant Sorghums Boost Take-Home Yields

By Robert L. Voigt

*"The Arizona Farmer can have his cake and eat it too." It looks like he can have bird tolerance and high yield in the same hybrid grain sorghum.*

"Feeding your feathered friends may be fun — but it can be an expensive hobby for some Arizona farmers." An article was published over a year ago in *Progressive Agriculture* in Arizona, describing in some detail a hybrid grain sorghum, Georgia 615, and its advantages to Arizona agriculture because of its "bird-tolerant" characteristics. The bird damage situation is a problem that certainly

Dr. Voigt is an associate professor in the Department of Plant Breeding.

is not decreasing in many agricultural areas in Arizona.

## Some Loss in Yield

Until recently, few bird-tolerant hybrid grain sorghums had been utilized here in Arizona. Some were tried in years past, but usually yielded somewhat less than the better adapted hybrids in situations where birds were not a problem. Previously it was necessary to sacrifice some yield when one selected a bird-tolerant hybrid to help insure some sort of a crop to harvest.

It looks now like we are almost able to "have our cake and eat it too," regarding yield and bird tolerance. The 1965 yield results of five bird-tolerant hybrids and four adapted but non-bird-tolerant entries suggests we now have high-yielding bird-tolerant hybrid grain sorghums in Arizona. Perhaps we no longer need always sacrifice yield for insurance against birds.

During the 1965 growing season, five hybrids with bird-tolerant char-



**BIRD DAMAGE** is evident in these heads of Regular Hegari, taken from a University of Arizona experimental field in October.

acteristics (Georgia 615, Georgia 609, Arkansas 614, Northrup King 273, and RS 617) and four hybrids lacking such attributes were yield-tested under conditions allowing severe bird damage at the Yuma, Mesa and Safford Branch Experiment Stations.

## No Damage at Marana

Sparrows and doves were the principal birds involved. A fourth test site on the Marana Experiment Farm was under conditions of no bird damage due to its location and surrounding grain sorghum acreage. These yield results are given in the adjoining table.

These five hybrids are ranked in order of average production at the

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that strike me as remarkably provocative. The poet writes:

I think I could turn and live with the animals, they're so placid and self-contained.

I stand and look at them long and long.

They do not sweat and whine about their condition,

They do not lie awake in the dark and weep for their sins,

They do not make me sick discussing their duty to God,

Not one is dissatisfied, not one is demented with the mania of owning things,

Not one kneels to another, nor to his kind that lived thousands of years ago,

Not one is respectable or unhappy over the whole earth.

However much he may admire certain stoic qualities of the animals, Whitman of course is not prepared to abandon the active life of the intellect to share their placidity. But in these lines he has admirably struck at certain of our follies which we can indeed correct. I particularly like the phrase "demented with the mania of owning things." It describes a

major malady of our day. I like, too, his joining the ideas of respectability (in a socially conventional sense) with frustration and unhappiness.

But Whitman is grossly exaggerating. The ruminations of bovines lead only to the digestion and assimilation of the nutritive elements in their fodder; what we call rumination in man is a totally different process which can, if one has genius, produce a poem like "Song of Myself."

## "Don't Be a Cabbage!"

If the animal life is to be rejected by man, the merely vegetative existence must be even more vigorously rejected, no matter how pleasant it might seem at times to take root and grow without feeling, presumably without, or with a very limited, consciousness. Of all ways of life, the dull life of the cabbage is most to be spurned.

Years ago in a northern town a neighbor across the street from our place planted a whole garden of cabbages. He failed to harvest them before the winter snows, and in the spring the melting snow uncovered them. As the days grew longer and

the sun grew warmer, the air was filled with the foul odor of their corruption.

There are cabbages in all social groups — those who do nothing to promote progress but are content with their dull, petty vegetative existence. There are a few in the teaching profession. There are some in many academic organizations — though of course not in Gamma Sigma Delta. When I am tempted myself to vegetate, I recall the cabbages and how in time their heads grow soft and useless and they go to seed.

Don't be a cabbage. Indeed, I urge you to join me in seeking as we cultivate our garden to root out the human cabbages. They are more harmful than Russian thistle, or the pink boll worm, or sap-sucking aphids. I offer to you as a rallying cry in this campaign to extirpate the cabbages an old French proverb, which I have just now invented for the purpose. It runs, "Mieux vaut tete d'oeuf que tete de chou" — "Better an egghead than a cabbagehead."