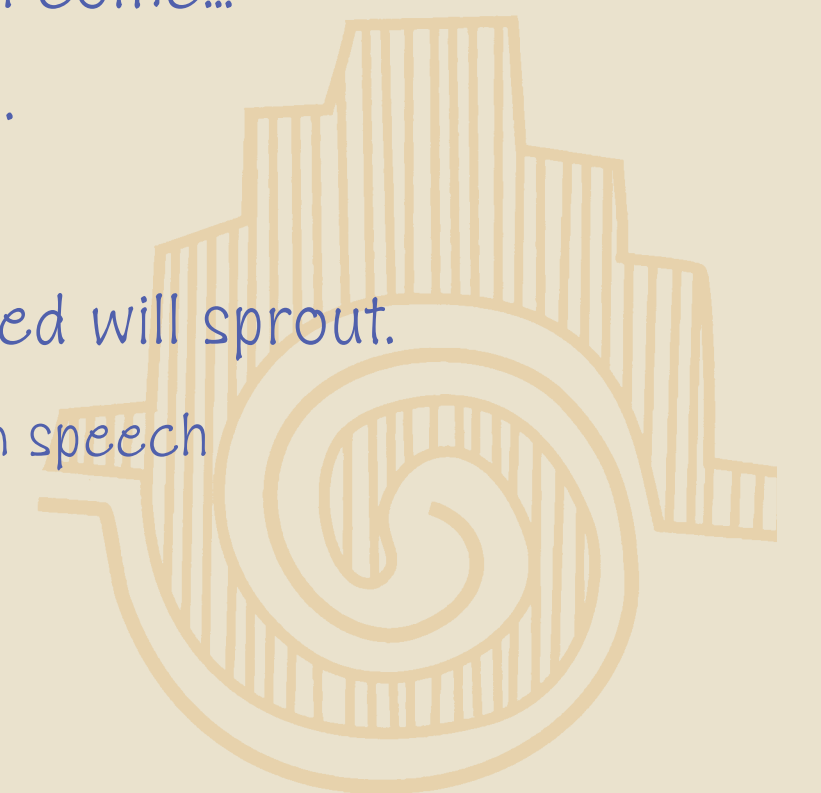


# Farming the Desert



Although the earth is wide, the clouds are braced across it and will come...  
They will leave the earth soaked everywhere, even the highest hills.  
The water will gently flood the little washes, wherever they are...  
It will leave the earth well moistened. After that various kinds of seed will sprout.

— Tohono O'odham rain speech



## The Three Sisters...and more

Adapted to a short, hot growing season, the crops best suited to arroyo mouth or monsoon farming are the “Three Sisters”— 60-day O’odham white maize (**hu:ñ**); yellow squash (**ha:l**); and, brown and white tepary beans (**bawĩ**), which are high in protein and drought tolerance. However, O’odham

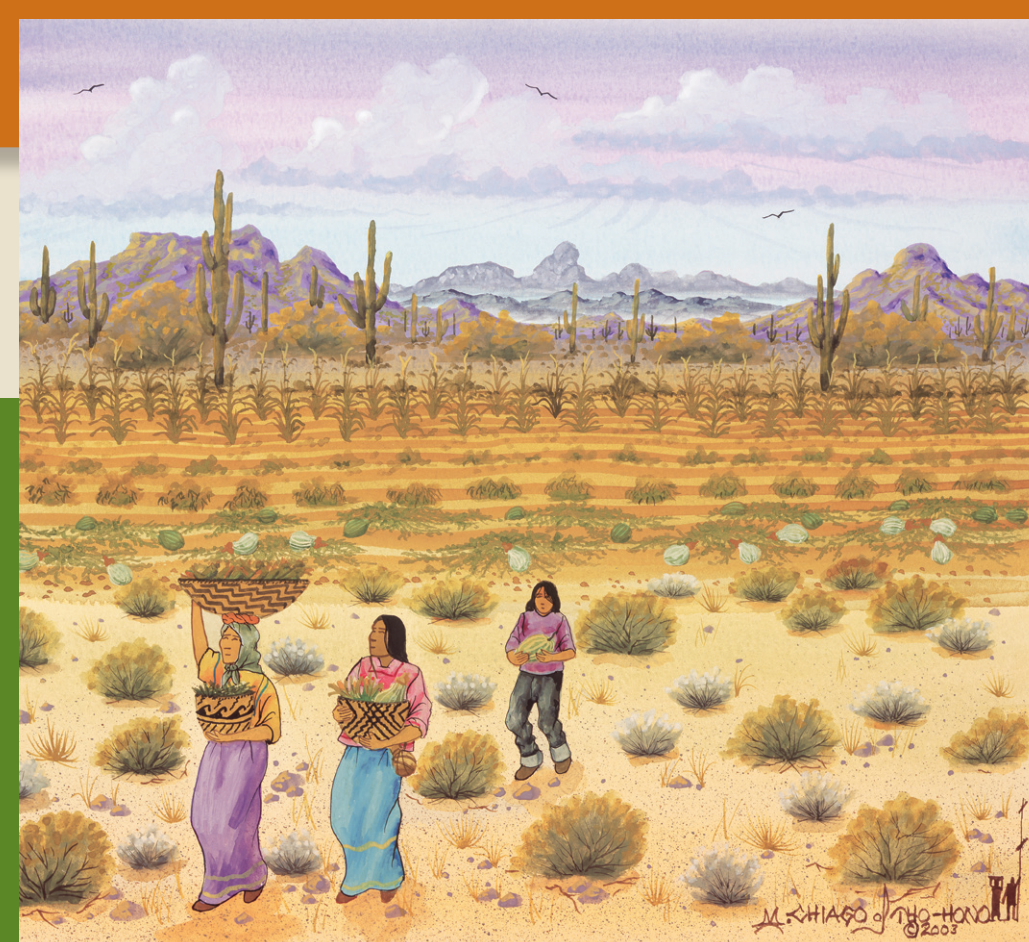


fields also yielded devil’s claw (**i:hug**), whose black fibers were used in basketry; edible greens (**i:wagi**) such as leafy amaranths, lambsquarter, and purslane; and, with the coming of the Spanish, sweet melons (**ke:li ba:so**). And rabbits that helped themselves to the harvest became “field meat.”

## Two-Village People

Long before modern technology created oases in the desert, environments dependent on imported water, this arid landscape sustained native farmers who adapted to nature’s rhythms. By 2100 B.C. early peoples living in the Tucson basin were cultivating domesticated plants along the floodplain of the Santa Cruz River. They irrigated maize, squash, and tepary beans, as well as cotton and agave, with storm water runoff and water diverted from permanent streams.

Sometime between A.D. 1450 and the arrival of Arizona’s first Spanish explorers in the mid-1500s, the Tohono O’odham settled in the arid desert lands west of the Santa Cruz. Called the “two village people,” the O’odham spent winters in the foothills near perennial springs and summers in the valley where they practiced floodwater farming, channeling water to their fields from monsoon rain-flooded arroyos.



that amend the soil.  
• Despite the locality of fickle monsoons, rain falling 10 miles away can still reach thirsty crops.

## Harvesting Rain

**Ak chin** (arroyo mouth) farming is an ancient but efficient system based on rainwater harvesting:

- Farmers build their fields beside intermittent streams or on the alluvial fans of dry washes.
- During monsoon season, when rain runoff fills the streams and washes, the farmers channel water from them to their crops through canals or by means of brush fences and dams, which have the added benefit of dissipating the erosive force of the floodwaters while acting as filters to strain nutrients and organic matter



## Rain is Blind

O’odham say that Rain is blind and Wind acts as his companion and guide. Once long ago the people drove Wind away and Rain went with him. Everything dried up and all living things suffered in the heat. Hummingbird tied feathers to a stick as a wind indicator and flew away to the east and found Wind living in a cave beside a stream. Wind and Rain agreed to return if the Desert People sang for them, so the people made wine (**nawait**) from the fruit of the saguaro and sang the ceremonial songs and Rain returned to the desert.



cloud symbol  
represents rain



dot on triangle symbol  
represents rain to Apaches

harvest illustration © Michael Chiago  
hummingbird illustration © 2003 Zackery Zdinak  
cloud and mountain symbols courtesy of the Heard Museum, Phoenix, Arizona  
Tohono O’odham rain speech from *Legends and Lore of the Papago and Pima Indians* by Dean and Lucille Saxton, University of Arizona Press, 1973