

North central Mexico:

Antonio Lopez walked slowly up the mountain path leading to the small plateau where his family had lived and farmed for many years; it was not much of a farm; a few hectares of thin soil surrounded by barrancos (gullies) where the soil was long since washed completely away. It was not much but it belonged to his family and had supported them for many generations. Antonio had farmed the land just as his father and his father's father before him had farmed; they did not plow the land (it was too thin), they did all of their work with hoes. For as long as he could remember, Antonio and his whole family gathered every scrap of manure they came across – cow dung, horse dung, even sheep and goat dung was picked up and added to the dung pile under the thatched shed at the edge of the field. A scoop of dung would then be added to each hill of corn, beans, peppers or squash when the seeds were planted. Using manure for fertilizer was something that everyone in the area had always done; just like they saved the largest and healthiest ears of corn to be next year's seed corn. Many years of selecting the best of each year's harvest had resulted in a landrace of corn that was uniquely suited to the local conditions; the value of this harmony between their environment and their corn was demonstrated when a neighbor brought some corn up from far down the Yaqui Valley and planted it instead of the local variety. The foreign corn failed miserably even as the local corn around it did well. The experiment caused great hardship

for the family who brought the new corn up into the hills and the people remarked on the wisdom of their fathers. Antonio was not aware of the fact, but there were (in the early 1940's) more than three hundred distinct varieties or landraces of corn in Mexico; each developed in and particularly suited to the conditions of a local area; many of these varieties had been in cultivation for hundreds of years.

Antonio still farmed as his father taught him even though most of his neighbors had long since dropped the traditional practices for the hybrid seed and fertilizers introduced by the proponents of what was being called "the green revolution." At first the results were little short of miraculous; the hybrid plants grew tall with the application of the new fertilizer and yielded three times what his crop produced. All was not sweetness and light, however, after a few years pests like the corn root worm, aphids and the corn ear worm began to take a serious toll on the corn grown in the new way. These insects had always been present in low numbers but their populations exploded in fields using the new practices. Strange new diseases began to appear with entire fields being killed or heavily damaged by leaf diseases and head smuts. The government people came and told the farmers what they must buy to spray on the plants or put in the ground but these things were expensive and people often felt ill after using them; two children died after playing where some of the powder had been spilled. Two years ago, the rains did not fall for sixty days in the summer and all of the

new corn shriveled and died; in the few patches still being farmed in the old way, the corn leaves curled up tight in the hot sun but did not die. The local corn curled up its leaves during the hot day time and un-curled them to breathe only during the cooler parts of the day; the people joked that the corn, being true Mexican, had the sense to follow the custom and take a mid-day siesta. The new hybrids had no such abilities and died if they were not watered. When the rain finally fell, the local corn revived and made a crop; not a big crop but far more than the new corn made. The soil in the fields farmed in the new ways became hard and did not seem to be able to soak up and hold the rainfall; there were no earthworms in the soil and even the birds ceased to visit these fields. It took more of the expensive fertilizer each year just to maintain yields of the same amount. Many of the farmers who adopted the new methods, borrowed money to buy the seed and other things required and found themselves unable to repay the loans. Land that had been in the same family for generations was sold to pay the debts and the families moved away to try to find work. Even where the rains did not fail, farmers were having harder times paying for all the things they must buy and still have enough to feed their families. With all of their problems, the new methods yielded more than the old ways and the extra production drove the price of corn down so that only a very good crop made enough to pay all the costs and still give the farmer a living.

Antonio had not deserted the ways of his father but the new methods still affected him and his family; the pollen from the hybrid corn blew into his field and contaminated his corn. His corn began to show the same problems that devastated the new corn and the price of corn fell so low that Antonio knew that he too would soon have to give up the land he loved and find other ways to feed his family.