



# Cropland

## Al' Isawiyah, Saudi Arabia

Rich in oil but lacking abundant water resources, Saudi Arabia has used oil revenues to adopt some of the best technologies available for farming in arid and semi-arid environments. One such technology is the center-pivot irrigation system (CPI). In satellite images, CPI-irrigated fields appear as green dots. These three images, from 1986, 1991, and 2004, reveal the effects of this irrigation strategy in a vast desert region in Saudi Arabia known as Wadi As-Sirhan. This region was once so barren that it could barely

support the towns Al'Isawiyah and Tubarjal that can be seen in the upper left of each image. Following the introduction of center-pivot irrigation, however, barren desert was gradually transformed into a greener, food-producing landscape. The irrigation system draws water from an ancient aquifer—some of the water it contains may be as much as 20,000 years old. Judicious use of water resources, and climate-appropriate technology, has in this situation helped improve food production without being detrimental to the environment.