Crop yield data show an interesting spatial distribution. The very largest figures cluster around New York City, while consistently high figures are found along the coastal spine from Delaware through to Massachusetts. At first blush, the data seems counter intuitive, the highest yields are found in the most urbanized counties outside of the central cities. We associate farming with distance from the cities not proximity. But remember the figures measure dollar yield per acre and are thus an indication of farming intensity.

A model of intensity around the city was first developed as far back as 1826 by a German landowner Johan Heinrich von Thunen (1783-1850). Von Thunen noted that there was a pattern to land use around a city: in particular more intensive uses were closer to the city. Farmers costs were based on land costs and transport costs. Since farmers paid less transport costs closer to the city, land costs tended to be higher. Only farmers growing the more intensive crops, with high returns, could afford the land closer to the city. The net result was a concentric ring pattern with more intensive agriculture in close proximity to the city.

While the assumption of the von Thunen model, such as a flat plain with unvarying fertility, are rarely met in the real world, this map gives empirical evident of the strength of the von Thunen model. Land closer to the cities is much more expensive than land on the periphery of Megalopolis. If farmers do locate in the areas closer to the city they need to engage in intensive, high-yield farming, such as the market gardening of fruit and vegetables. In some cases it is not so much distance as time of transportation that is important. Large cities require quick and immediate supplies of fruit and vegetables and other specialized agricultural products. Restaurants, for example, require daily supplies for their diners. Proximity to the city provides swift access but at the price of high land values, which in turn means that only intensive farming with high yields makes economic sense. Organic fruits and vegetables is another emerging market that yields a high dollar return per acre. High-end consumers are willing to bear the greater costs associated with these products.

Notice the high yield counties around New York City, Philadelphia and Boston. There are other areas of relatively high yield such as New Jersey, giving credence to the state motto of Garden State, Rhode Island and southern Connecticut. In part these high yields are a function of proximity to the cities as well as varying soil fertility.

Along the edges of Megalopolis, especially in the interior western boundary and in the north, dollar yield per acre is relatively small, a function of the distance from the large cities. Lacking a ready market in these locales, farmers would face high transport costs and longer time to market for highly perishable products. Unable to compete with the more accessible farmers close to the cities, the farmers on the periphery will adopt more extensive than intensive farming practices.

**Average Dollar Yield for Crops per Acre of Cropland**

**SOURCE:** 1997 U.S. Census of Agriculture

**NOTE:** These values were calculated using total cropland and market value of agricultural products data from the 1997 U.S. Census of Agriculture. Data refers only to acres of cropland and market value of crops sold, including nursery and greenhouse crops.