## **Confined Animal Production**

## (Continued from Page 42)

This analysis provides the basis for later assessment of the economic feasibility of land application as a manure management strategy.

The number of confined livestock farms declined by half from 1982 to 1997, while the number of confined animal units (AU) increased 10 percent. This increase has occurred due to more large farm units (with more than 1,000 AU), rather than large farm units becoming larger. The number of confined animal farms and the number of confined AU declined on farms with fewer than 300 AU from 1982 to 1997, and increased on farms with more than 300 AU.

Confined livestock and poultry produced over 1.2 million tons of recoverable nitrogen and 0.7 million ton of recoverable phosphorus in 1997. Most farms (78 percent for nitrogen and 69 percent for phosphorus) have adequate land on which it is physically feasible to apply the manure produced onfarm at agronomic rates. Still, manure produced on operations that cannot fully absorb it at agronomic rates accounts for over 60 percent of manure nitrogen and 70 percent of manure phosphorus. Manure nutrient production above potential onfarm assimilative capacity does not imply a water quality problem — it simply means that the manure would need to be transported from the producing farm to be effectively used in growing crops. Incentives may be needed to encourage produc-

ers to improve current manure management practices to ensure that applications are made at agronomic rates.

Some farms in all size classes produce manure nutrients over the farm's potential assimilative capacity. However, the two percent of farms in the large size class (more than 1,000 AU) produced almost half of the excess manure nitrogen and more than half the excess manure phosphorus.

The quantity of excess onfarm manure nutrients increased in all regions over 1982-1997, with the greatest quantity increase in the Southern Seaboard region, and the greatest percentage increase in the Heartland.

Most U.S. counties (about 75 percent) have at least one farm that needs to move manure off the farm to avoid excessive nutrient applications.

Only about five percent of counties have farms that collectively produce manure nitrogen that accounts for over half the total nitrogen needs in the county. However, about 10 percent of counties produce manure phosphorus that exceeds half the county's total phosphorus needs.

As of early 2001, EPA proposals for future National Pollutant Discharge Elimination System (NPDES) permits for concentrated animal feeding operations (CAFOs) would require the development of nutrient management plans (NMP) as part of the permit. These (Turn to Page 44)

