



USDA-CSREES 2007 National Water Quality Conference

[Establishing effective cover crops for end-of-season nitrogen recovery](#)

Most farmers and extension and USDA-NRCS staff may know the appropriate date for seeding cover crops, but this is based on achieving 30% cover prior to winter for control of soil erosion. In the Deerfield area of Massachusetts in the Connecticut River Valley the seeding date has been taken to be September 15 or even 10 days later. However, these seeding dates for cover crops have been determined only for controlling water and wind erosion. Thus, they were mainly based on plant canopy cover, not on root development or their nutrient uptake ability. Our research indicated the seeding date for maximum N uptake was two to three weeks earlier than the date for adequate soil erosion control. Based on these results many cover crops planted by farmers are not effective in taking up end-of-season N. If N is not taken up by a cover crop in the fall it will be lost to leaching. This is especially problematic on dairy farms with fall-applied manure being an environmental issue, and represents a real economic cost in terms of nutrients lost.

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