

Michigan Supplemental Enhancement Activity

Water Quality Enhancement Activity– WQL10 – Plant a cover crop that will scavenge residual nitrogen

Enhancement Description

Plant a cover crop that will scavenge nitrogen left in the soil after the harvest of a previous crop.

Land Use Applicability

This enhancement is applicable on cropland.

Benefits

Planting an annual cover crop to scavenge residual nutrients from cropland after the harvest of a previous crop effectively utilizes residual nutrient resources to supply following crops with nutrients required to efficiently produce food, forage, fiber, and cover while minimizing environmental degradation.

Criteria for Planting a Cover Crop That Will Scavenge Residual Nitrogen:

Follow the Michigan Cover Crop (340) practice standard.

Refer to Table 1. Cover Crop Species, to choose a plant species identified as EN (Excessive Nutrients). Follow the Additional Criteria to Manage Excess Nutrients in the Soil Profile.

The amount of N that is scavenged by the cover crop is estimated to be approximately 50% of the available soil nitrates. An estimate of available soil nitrate after harvest can be developed using the farm nutrient balance spreadsheet.

Reference:

Cavigelli, M.A., S.R Deming, L.K. Probyn, and R.R. Harwood (eds.), 1998. Michigan Field Crop Ecology: Managing Biological Processes for Productivity and Environmental Quality. Michigan State University-Extension Bulletin E-2646, 92 pp.

Chart 2 Performance & Roles, from “Managing Cover Crops Profitably, 3rd Edition”, is attached for reference.