

Step Two in Flood Recovery of Pastures Is Renovation

April 23, 2019 | Beth Doran, extension beef specialist; Joel DeJong and Brian Lang, extension field agronomists

ORANGE CITY, Iowa – As flood waters are receding the renovation of flooded pastures is just beginning. Beth Doran, beef specialist, and Joel DeJong, field agronomist, both with Iowa State University Extension and Outreach, recommend producers check pasture plants for survival. They remind producers that forage production is a function of the plant species, and their density and growth. DeJong suggests evaluating live plants (plant vigor), plant density, and desirable species versus weeds.

Mahdi Al-Kaisi, extension agronomist and professor in agronomy, said flooding can flush nutrients necessary for plant growth out of the soil. With Al-Kaisi's comment in mind, DeJong makes the following recommendation.

“If there is an adequate percent ground cover of desirable species, I'd recommend boosting production with the application of 50 to 80 pounds of Nitrogen per acre,” DeJong said. “Grasses usually respond the most to nitrogen fertilization, but soil sampling will reveal if other nutrients were flushed from the soil and need to be replaced.”

Daren Redfearn, extension forage specialist with the University of Nebraska–Lincoln, said the major flooding impact on grass pastures may also be due to excessive sediment deposits. Most perennial forages can produce new shoots and tillers if sediment deposits are less than 2 inches. In this case, crusting may occur, and light tillage will level sediment and enhance recovery. With deeper sediment, plants can suffocate and result in substantial stand loss. In these areas, mechanical removal is preferred to reduce plant loss and reduce the need for reseeding.

“With thinner stands, interseeding with a no-till drill may be the best approach,” said DeJong. “If the stand is too thin, then complete renovation or reseeding may be needed.”
If interseeding, consider what kinds of improved species to include in the seed mixture. For example, those more tolerant of wetter or drier conditions, close grazing or in rotation, or more tolerant of summer slump might be appropriate choices.

ISU Extension and Outreach publication “[Selecting Forage Species](https://store.extension.iastate.edu/Product/5367)” (<https://store.extension.iastate.edu/Product/5367>) could help with this decision. Also, the publication “[Steps to Establish and Maintain Legume-Grass Pastures](https://store.extension.iastate.edu/product/4332)” (<https://store.extension.iastate.edu/product/4332>) might be of interest to those considering establishing and maintaining legume-grass pastures. Both publications can be downloaded at no charge from the online store or made available by the county ISU extension office.

Brian Lang, ISU Extension and Outreach field agronomist, recommends that producers treat new pasture like a newly established hayfield.

“In my opinion, the best way to start a new pasture is to treat it like a hay stand in the establishment year, if the terrain allows for a hay harvest,” Lang said. “Two hay cuttings provide time to establish strong root systems, and then include the area into your normal grazing system.”

With rougher terrain, interseed improved species and occasionally use a mower or a light flash grazing to reduce competition from weeds and established forage plants. Do your best to give the new seedlings a chance to root-down before incorporating the pasture into your normal grazing system.

Weeds also can be a problem in flooded pastures. Broadleaf herbicides can be applied to grass pastures; however, some of these herbicides have restrictions regarding new seedlings. In those cases, periodic mowing may be the best weed control option in interseeded stands until the new seedlings are established.

Doran reminds producers that evidence suggests these considerations: use of a sacrifice pasture while new stands are being established, the use of summer annuals, and/or fall grazing of cover crops. Iowa State University Extension and Outreach [beef specialists](#) and [field agronomists](#) are ready to help with questions and concerns on renovating pastures and establishing grazing systems.