

Moist Soil Management for Waterfowl

MSMFW04172020

Native plants produced by moist-soil management provide valuable food resources and habitat for many wetland wildlife species. In addition, moist-soil areas provide an abundance of aquatic invertebrates eaten by ducks and other wildlife.

Federal and state laws should be followed when managing moist-soil areas. Before constructing a moist-soil area, contact the local Natural Resources Conservation Service for technical guidance.



METHOD: Water level manipulation is the most effective technique in moist-soil management, provided manipulations are well timed and controlled. It is best on sites with:

- low permeability soils that inhibit subsurface water loss
- a dependable water supply
- an elevation gradient that allows water to cover a majority of a site at desired depths, and
- a water control structure(s) that enables water to be supplied, distributed and released at a desired time, rate and duration.

DRAWDOWNS: Timing and rate of the annual drawdown are the most important considerations when managing moist-soil areas for waterfowl; these factors influence the composition and production of moist-soil plants. Drawdowns are described as early season, mid-season, and late season and are considered within the length of the local growing season. Early season drawdowns occur in the first 45 days of the growing season, generally beginning in mid-March. Mid-season drawdowns occur during the second 45 days of the growing season and late season drawdowns take place after mid July.

Early season drawdowns generally produce the most seeds but there are exceptions. Mid and late season drawdowns can be successful in stimulating seed production. Because environmental conditions differ among seasons and years, base moist-soil management decisions on environmental variations rather than on a set calendar date. Repetitive management based on specific calendar dates often is associated with a decline in productivity. Fast (1-3 days) drawdowns often produce stands of similar vegetation; whereas, slow (2-6 weeks) drawdowns produce a greater diversity of plants and extend the time the area is useful to waterfowl. Also, when water is released slowly, nutrient export is low and invertebrates are trapped, becoming readily available to ducks.

REFLOODING: Reflooding should coincide with the arrival of fall migrants to assure habitat use. It should be gradual to allow food and habitat to become available slowly. As fall progresses, continue flooding to accommodate increasing waterfowl populations. As a rule of thumb, the majority of a managed area should be flooded to an optimum water depth at the peak of winter waterfowl migration.

CHECKING RESULTS: Inspect moist-soil areas regularly during the growing season for undesirable plant competition. Undesirable plants are not simply plants that provide no benefit to waterfowl. They include plants that quickly shift a diverse plant community toward a monotypic plant community and out-compete plants with greater wildlife value. Site disturbance will be necessary if a moist-soil area has not been disturbed for several years or if water regimes remain constant over time. Prescribed burning, disking or mowing (generally in the summer) every 2 – 3 years will set back plant succession and increase desirable seed producing plants.

The following links are good references for information regarding moist soil management and benefits to waterfowl.

[NRCS Wetland Management for Waterfowl Handbook - USDA](#)

[Moist-Soil Management Guidelines for the U.S. Fish and Wildlife Service Southeast Region](#)

[Waterfowl Management Handbook](#)

[Waterfowl Management Handbook LMRV](#)

[Moist-soil Impoundments for Wetland Wildlife](#)

[Field Guide to Aquatic Plants of Alabama](#)

[Common Moist Soil Plants Identification Guide](#)

Additional information/assistance may be available by contacting a wildlife biologist with the Division of Wildlife and Freshwater Fisheries.

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