

Moist-Soil Management for Waterfowl

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Moist-soil management can be defined as the deliberate drawdown of water on a site to promote germination of native plants adapted to saturated soils and subsequent reflooding of the same site to accomplish pre-determined goals. Native plants produced by moist-soil management provide valuable food resources and habitat for many wetland wildlife species. Also, moist-soil areas provide an abundance of aquatic invertebrates eaten by ducks and other wildlife.

Water level manipulation is the most effective technique in moist-soil management, provided that manipulations are well timed and controlled. Manipulation of water levels is most effective 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 the proper type of water control structure(s) that enable water to be supplied, distributed, and released at a desired time, rate, and duration.

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 in general terms as early season, midseason, and late season and should be considered within the context of the length of the local growing season. Early season drawdowns occur within the first 45 days of the growing season, generally beginning in mid March in Alabama. Mid season drawdowns occur during the second 45 days of the growing season, and late season drawdowns occur after mid July. Early season drawdowns generally result in the greatest quantity of seeds produced; however, there are exceptions, mid and late season drawdowns can be successful in stimulating seed production.

Because environmental conditions differ among seasons and years, moist-soil management decisions should be based on environmental variations rather on a set calendar date. Repetitive management based on specific calendar dates often is associated with declining productivity. Fast (1-3 days) drawdowns generally produce stands of similar vegetation; whereas, slow (2-6 weeks) drawdowns produce a greater diversity of plants and will extend the length of time the area is useful to waterfowl. Also, when water is released slowly from an area, nutrient export is low and invertebrates are trapped and become readily available to ducks.

Reflooding should coincide with the arrival of fall migrants to assure habitat use. Flooding 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.

Migrating waterfowl benefit from moist-soil management.

Moist-soil areas provide numerous opportunities for outdoor recreation including hunting, birdwatching, and photography.

Moist-soil areas should be inspected regularly during the growing season for undesirable plant competition. Undesirable plants are not simply plants that provide no benefit to waterfowl. Rather, 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. Prescribe burning, disking, or mowing every two to three years will set back plant succession and increase desirable seed producing plants.

Moist-soil areas provide numerous opportunities for outdoor recreation. Whether it is hunting, birdwatching, or photography, properly managed moist-soil areas can greatly enhance recreational values, while simultaneously, provide important habitats for many wetland wildlife species.