



UNIVERSITY OF  
FLORIDA

IFAS EXTENSION

## Use of Aquatic Cover Crops for Phosphorus Control on Organic Soils <sup>1</sup>

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This BMP series was written specifically to address the concern for phosphorus control in the Everglades Agricultural Area. The information contained in the series may be applied to any agricultural area composed primarily of organic soils or Histosols. However *please be aware that this information is not applicable to any other soil types.*

### BACKGROUND

This Best Management Practice, when used during the vegetable production off-season and the flooded fallow rotation of sugarcane, could reduce phosphorus losses from 5-20%. An aquatic cover crop such as rice will uptake a significant portion of the excess phosphorus that becomes readily available during any flooding fallow operation. Additional diking and pump facilities will be needed to maintain the required flood conditions if not already available. The permanently hydraulically blocked farming system, described earlier, could be readily used for growing aquatic crops. Rice is probably the only

major aquatic crop available at this time with sufficient economic value to be considered.

The major management consideration for growing an aquatic crop in rotation with non-aquatic crops is the "drain-down" period. The water, which must be removed from the field at the end of the aquatic cover crop season, should not be directly discharged from the farm because it will likely contain elevated phosphorus levels due to phosphorus releases from the soil and from bird droppings. Scheduling of the draw-down operations so that they match available on-farm retention capacities of surrounding blocks is very important. The retention capacity of the surrounding farm blocks can be determined by defining the amount of water to be drawn down as excess rainfall (see Minimizing Water Table Fluctuations). As cited earlier in reference to vegetable drainage retention in sugarcane land, the high phosphorus water drained from the flooded soil can be utilized as a fertilizer in surrounding lands.

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