PHYTOPLANKTON BLOOMS IN PONDS

Phytoplankton (single-celled plants) fill several positive roles in ponds. Suspended in the water, these microscopic plants that make it appear green are often collectively referred to as "the bloom." Like all green plants, phytoplankton produce oxygen during daylight hours as a by-product of photosynthesis. This is a major source of dissolved oxygen in fish ponds.

A complex community of microscopic animals called zooplankton is associated with a phytoplankton bloom. These tiny animals are herbivores that graze on the phytoplankton. In turn, they become a major food item for small fish by providing a link between the bloom and the rest of the food chain.

Another valuable function of phytoplankton blooms is to help prevent submerged weed growth in ponds. A bloom that is dense enough to shade the pond bottom will not allow weeds enough sunlight to grow. A bloom heavy enough so you cannot see your fingers moving when your arm is submerged to the elbow is about right.

To establish an adequate bloom to keep submerged aquatic weed from growing on the pond bottom, it may be necessary to add fertilizer. Recommended fertilizer rates vary dramatically and are dependent on soil and water chemistry. Begin fertilizing in early spring before bottom-growing weeds and algae become established. Once fertilization is begun, it is important to follow a schedule to monitor the pond and add fertilizer as needed.

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