

Pond Stocking Limitations

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Considerations

- Purpose of the pond
 - Production
 - Recreation
- Limiting characteristics
 - Physical space
 - Water quality
 - Size and type of fish



Production

Highest practical density for species/size

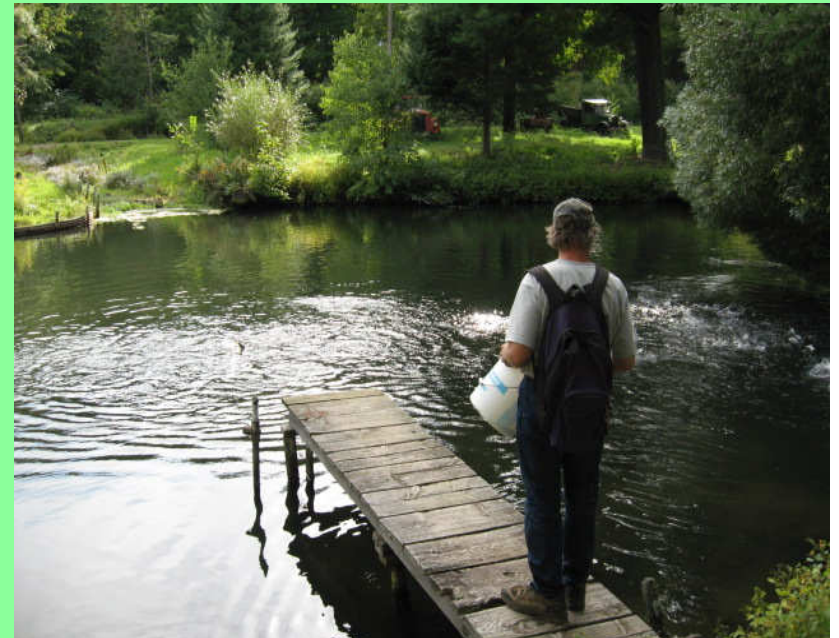
- Fry-fingerling
 - Space and substrate
 - Zooplankton concentration
 - Lined ponds
 - Water quality
 - Dissolved oxygen-fertilization protocol
 - Impact on nitrification of ammonia
 - Fish
 - Single species -cannibalism
 - Target size -adequate food supply
 - Stocking method
 - Np-40k/ac we-70k/ac yp-150k/ac



Production

(cont.)

- Grow-out
 - Space and substrate
 - Less about food availability (not reliant on nature)
 - More about social interaction (big fish - little fish)
 - Water quality
 - Dissolved oxygen even more critical
 - Usable space due to temp, D.O., sunlight
 - Fish
 - Species -cannibalism/interaction
 - Target size -adequate food supply



“Feed the gain” calculation

(for yp in static, unlined pond)

- Limit -30lbs of food/day = 13,360g
- 0.33g/d/fish weight gain
- x 1.5 (fc) = 0.495g feed/d/fish
- $13,360\text{g}/0.495\text{g} = \sim 27\text{k}$ fish
- Survival = 80%
- Stock 27k + 20% = 32,400 fish into 1ac pond
- $(27\text{k} \times 0.33 \times 180\text{days})/454\text{g/lb} = 3,568\text{lbs/ac}$
- Average fish growth 60g/season

Recreation

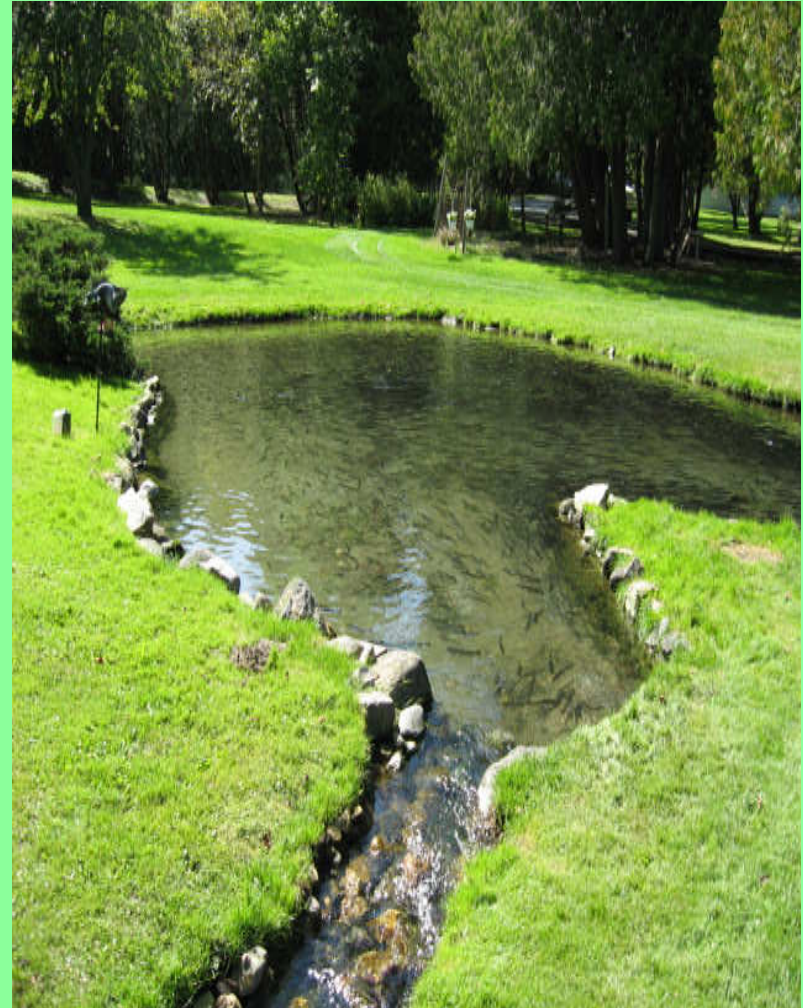
- Space and environment
 - Usable water
 - Depth
- Water quality
 - Water temperature
 - Effect of plants on
 - D.O.
 - nutrients
 - Food source
 - Natural production
 - Minnows
 - Over-feeding



Recreation

(cont.)

- Fish species and mix
 - Species - temperature
 - Desired activities
 - Control reproduction
 - Limit opportunities
 - Sex ratios
 - Collect eggs
 - Predator-prey
 - Remove small fish?



What fish to stock

- Desirable
 - Blue gill
 - Control population
 - Hybrids
 - Crappie (prefer open water)
 - Yellow perch
 - Control reproduction
 - Bass
 - LM (warmer)
 - SM (cooler)
 - Catfish (slow growth)
 - Koi?
 - Trout
 - Rainbow (up to 66°F)
 - Brook (up to 60°F)
- Undesirable*
 - Wild transfer!!!
 - Bullheads (never!)
 - Carp and suckers
 - Exotics (grass carp)
 - Tilapia
 - Hybrid Striped Bass
 - Northern pike?
 - Can prey on bass
 - Walleye?
 - Can prey on bass

Always purchase
health-certified fish
from a Wisconsin producer

