

oxygen depletion and resultant stress on fish which can end in poor growth or mass die-off. Michigan ponds with less than 15 feet of water not only are more subject to complete winterkill in especially cold winters, but may, in most years, have disappointing fish populations—fewer fish, smaller fish, and less desirable kinds of fish—owing to near-winterkill conditions.

Lesser depth may suffice where strong flow of well-oxygenated spring water prevents dissolved oxygen depletion. This is the case in trout ponds with large outflow. Even in such ponds, however, depth greater than 15 feet tends to result in superior fishing. This may be a matter of more room for the fish and a

greater range of living conditions for them—and their food organisms—to choose from.

Having depth of 18 to 20 feet is distinctly better than 15 feet, and 25 feet is still better. Beyond that depth, we aren't sure whether further improvement takes place. The recommendations of 10 to 12 feet for pond depth, which one often sees, are based on conditions in more southerly states and are inappropriate for the harsh winter climate of the northern tier of states.

We recognize that there are two problems which sometimes prevent attaining pond depths of at least 15 feet—cost and unfavorable soil conditions. Excavation costs tend to

become disproportionately higher as depth increases. If money isn't available for digging at least 15 feet deep, it would be well to save up until there is enough rather than creating an inadequate pond and a disappointing fishery.

A soil problem which can occur is when the proper depth cannot be dug because doing so would perforate a clay layer, thereby breaking a natural seal, and allowing the pond water to drain away. It depends on the structure of the soils and should be investigated in advance by SCS or other knowledgeable individuals. If natural clay sealing is broken to achieve proper depth, the pond bed can be resealed with clay, but that can be expensive.

