

## **Muskrat Information**

In the midwest, most muskrats live in streams. In spring or fall, some of the muskrats move. In their spring travels, they are hunting food and safe places to rear young; in fall, they are hunting food and safe winter quarters. These traveling muskrats usually stay in their summer locations until fall and in their winter homes until spring. They may stay in either location permanently if the food and denning facilities are good enough. When they travel they may go several miles, even across dry uplands, in their search for better places to live. The spike rush, leafy bulrush, and water willow plants recommended for ponds have little attraction for muskrats.

When muskrats dig into dams, it is to make homes. The burrows start under water, then rise to a chamber hollowed out above water level, with from one to two feet of solid earth and sod above. The muskrats don't tunnel through the dam unless the water rises high enough to make them dig a new chamber, higher up. That is one reason for specifying high freeboard and a wide spillway: these keep the water from coming up high enough to force the muskrats to dig new higher chambers dangerously close to the surface.

## **Damage Prevention and Control Methods**

Good pond construction is the best insurance against actual damage by muskrats. Minimum standard specifications: dam with water face slope 3 to 1, outer face 2 to 1, width at top 8-12 feet, and freeboard 3 feet after settling, dam sodded and livestock kept off; spillway wide enough to carry off surplus water so it never rises more than 6 inches on the dam.

Earthen dams can be protected by cutting a narrow trench down the center of the dam and filling it with concrete. The trench should extend three feet below the water and should be filled with concrete to one foot above the normal high-water level. This barrier will prevent muskrats from burrowing completely through the dam and causing a leak.

Muskrats can be prevented from digging into farm pond dams through stone rip-rapping of the dam. Rip-rapping areas susceptible to damage creates an effective muskrat barrier. Stone should be at least 6 inches thick and should be placed 3 feet below the water level and extend to 1 foot above water level. Placing 1-2 inches of galvanized mesh wire on the inside of the dam will prevent muskrat damage. Wire should extend from 3 feet below the water level to 1 foot above.

Old or abandoned muskrat dens may cave in. Then it is usually a simple job, if done at once, to fill in the cavity and reseed to prevent washing. If farm pond dams or levees are being damaged, one of the ways that damage can be reduced is to draw the pond down at least 2 feet (61 cm) below normal levels during the winter. Then fill dens, burrows, and runs and rip-rap the dam with stone.