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SAFE WATER SAMPLING PRACTICES

Clover Safe notes are intended primarily for 4-H volunteers and members nine years and older.



*Photograph Courtesy of
Orange County 4-H Program*

Water sampling is conducted to acquire representative water samples for field or laboratory analyses. These analyses are performed to characterize water quality and are also used to determine whether water is suitable for drinking, food processing, swimming, wildlife habitat, irrigation, industrial processes, and many other purposes. This Clover Safe note discusses how to perform safe water sampling.

Safe Water Sampling Practices

- Sampling should be conducted with a partner or as a group. The location and duration of the sampling activity should be provided to someone not participating in the event.
- The sampling team should carry a first aid kit and cell phone and know how to direct emergency responders to the sampling location or transport an injured person to the closest medical facility.
- Always wear appropriate personal protective equipment, including a hat with brim, shirt, long pants, sunscreen, sunglasses, insect repellent, and rubber boots or sneakers when sampling outdoors. Carry adequate drinking water (one quart or more) for the weather conditions. See Clover Safe #19 for information about heat illness.
- When sampling from a boat or dock, a Personal Flotation Device (life vest) must be worn.
- Bridge sampling must only be performed from a sidewalk. Never from a roadway.
- Follow any posted signs or access restrictions.
- Be aware of tidal cycles when sampling in coastal and estuarine wetland areas.
- Do not wander from your sampling group or partner.
- Never enter water to acquire samples until given permission by the group leader.
- Do not wade into swift water or water above your knees.
- Be alert and take precautions when standing on steep or slippery banks adjacent to bodies of water. Beware of stepping onto slippery rocks or slopes.
- Be cautious of stepping onto unsupported vegetation, soft mud, or quicksand. Use a pole or branch to probe the surface ahead of you when entering or crossing wetland areas.
- Always wear protective gloves and rubber boots when sampling suspected or known contaminated water in ponds and streams or flowing in concrete canals, culverts, or stormwater outfalls.
- When handling water-sample preservatives, wear chemical resistant (latex) gloves and eye protection. Do not touch your eyes, nose, and/or mouth. Always wash your hands with soap and water after handling water sampling chemicals.
- Discontinue water sampling if you observe the approach of a lightning storm.
- At the conclusion of sampling, wash your hands with soap and water and complete your sampling documentation paperwork.