**Water sampling for chemical analysis**

**Sampling equipment**

* 0.25-L glass amber bottles with lids for MSCL samples (*see bottle example below*)
* 0.125-L HPDE bottle
* Field data collection sheets
* Clipboard
* Digital camera
* Water quality instruments
* Contaminant pad(s) and tub(s)
* Decontaminant tank
* Nitrile or rubber gloves
* Rubber boots
* Trash bag(s)
* Apron or Tyvek coverall
* Eye protection (safety goggles, face shield) and eye wash bottle
* Kitty litter, shovel, and trash bags
* Sample inventory
* MSCL Analytical sample submission forms
* Shipping SOP (*see MDNR\_Chemical Treatment\_Shipping SOP*)
* Sampling and shipment coolers, wet and blue ice, tape

**Personal Protection Equipment (PPE) procedures**

1. Personnel should wear nitrile or rubber gloves, rubber boots or waders, eye protection, and apron as a barrier to water with concentrated pesticides.
2. PPE contaminated by site water should be changed between sampling sites
3. Disposable PPE can be disposed as residential trash.
4. After use, non-disposable PPE (e.g., rubber boots or waders) should be tripled rinsed with well or tap water to remove sediment or debris from equipment and pesticide residue.
5. Place rinsate (i.e., rinse water with residual chemicals) in retention.
6. If contaminated, clothing should be laundered separately with heavy-duty laundry soap twice. A third empty cycle in hot water should be run thru machine after clothes have been cleaned. If clothing is completely saturated in pesticide, do not launder, dispose of clothing.

**Water volume requirements**

About 0.25 L of water is required to support chemical analyses of pyrethrin and PBO in surface water. About 100-ml for water quality analyses (e.g., ammonia, alkalinity, hardness, turbidity).

**Water sampling**

1. See data sheet for location of three water samples per pond.
2. Triple rinse each sampling jar prior to filling with sample water.
3. Fill jars:
   1. Fill 250-ml amber glass jars for MSCL about 3/4 full
   2. Fill 125-ml HDPE bottle for CERC to the neck of jar.
4. Wipe dry before putting into cooler with ice.
5. Get MSCL samples into freezer as soon as possible and WQ samples into refrigerator (or keep on ice).

**Sample storage and transmittal**

1. Place samples temporarily in a freezer or refrigerator after collection.
2. See “Shipping SOP” for additional sample transmittal information.
3. Placed in MSCL samples in pre-labelled coolers for shipment to Mississippi State, MS.
4. Return all unused water from Sheraton WQ sample to pond daily.

**Transfer of data**

1. Document field operations associated with sample collection on field sampling sheets or field notebooks.
2. Scan data and email or mail data sheets/notebooks to CERC.
3. Transfer any digital photographs of the sample sites and collected.

*MSCL water bottle CERC water bottle*

 