



Practical Biosecurity Programs
Standard Biosecurity Protocol (SBP)
SBP 14

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Disinfectants for Biosecurity Purposes

1. **Purpose:** To reduce the potential of disease transmission
2. **Responsibility:** Farm Staff
3. **Frequency:** Clean-out
4. **Biosecurity Protocols**
 - 4.1 Disinfectants are chemicals used on inanimate objects that kill, inactivate, destroy or inhibit many but not necessarily all organisms
 - 4.2 There are various disinfectants available and are effective in sanitizing animal production units



Picture 14.1, Oderkirk, 2010



Picture 14.2, Vaillancourt, 2003

- 4.3 Disinfectants are effective against bacteria, viruses, spores, fungi and/or parasites
- 4.4 The choice of disinfectant should be dictated by the prevalent pathogens on the farm site or area
- 4.5 Common disinfectants are categorized by the active chemicals and these are examples:
 - Chlorines – Sodium hypochlorites, Clorox, Javex
 - Iodophores – iodine, Accept-All, Interdyne, Premise
 - Phenols – Tek-Trol, Environ, Lysol

Aldahydes – Gluteraldehyde, Formaldehyde, Formalin, Aldicide
Quaternary Ammonia – Germkill, Proquat, Quats-D Plus, ASCEND
Hydrogen peroxide + Paracetic acid – Hydrogen peroxide, Virkon, Trifectant,
Hyperox
Multi-disinfectant mixes

- 4.6 Disinfectants are diluted in water for use and are at a dilution usually at 128-256:1 ratio of water to disinfectant (128:1 is 1 ounce/gallon or 2 ml/liter of water). Remember to read the label for proper mixing instructions
- 4.7 One gallon of diluted disinfectant solution covers 100-150 ft² of surface
40x100x9 ft. pen = 10,520 ft² surface which would require 70-105 gallons of the disinfectant solution
- 4.8 Disinfectants work on contact and take 10-30 minutes of contact time to be effective
- 4.9 When spraying disinfectant, wet the surface to the point where the solution begins to run
- 4.10 Disinfectants work best at temperatures over 65 °F where some barns may have to be warmed up before proceeding with disinfection. Only Virkon shows some effectiveness at lower temperatures. No disinfectant works in freezing temperatures
- 4.11 Record disinfectant use on the **SBF5: Disinfectant, Pesticide & Herbicide Use Chart**

5. Biosecurity Deviation Protocols

- 5.1 If the pen surfaces are not clean, do not disinfect until properly cleaned as disinfectants do not work on organic materials.

6. Biosecurity Records

- 6.1 **SBF5: Disinfectant, Pesticide & Herbicide Use Chart**