



PIC White Wash Protocol

Hydrated lime is a natural substance that is highly caustic. There's no reason to be scared of it, but it's important to take the proper precautions while handling it. Wear a dust mask when you are scooping out the dry lime to avoid getting any into your lungs, and safety glasses and gloves are required too. If you get it on your skin, it will make your skin feel super dry and kind of icky, but it's simple to wash off with water or neutralize with a bit of vinegar.

Before Whitewash:

1. **CLEAN** the entire room; crates, heat lamps, heat mats, ceilings, feed lines, walls and everything else inside the room. Completely free of organic material. Use of detergent to aid in cleaning organic material is highly recommended.
2. Only disinfect the ceilings, feed lines and any other area that does not contact the animals. Then, cover all areas that come in contact with the pigs or sows with White Wash solution. Crates, walkways, walls up to 4 feet and anything else that the animals can contact.
3. Allow the area at to **completely dry overnight**. This minimum drying time is critical for the success of the application.

Safety:

- Remember to wear protective gear when mixing and applying the lime.
- The mixing process must take place in a draft-free, well ventilated area.
- When doing the mixing, it is important to wear boots, coveralls, gloves, and dust mask to prevent possible irritation to respiratory tract. Goggles are also required and face shield to prevent splashes into eyes and face as the lime may cause irritation to the eyes and chemical burns to the skin.
- If the stirring during the mixing of the solution is done using an electric drill, insure the tool is connected to a GFCI outlet and prevent it from getting wet or falling into the solution. The use of a battery powered drill is recommended.
- When applying the lime, a rain suit is required to wear along with boots, gloves, goggles and face shield. Wearing rubber chemical gloves will eliminate the need to wear two pair of latex gloves and will provide better protection for skin. Also either duct taping the sleeves to the gloves or wearing elbow length gloves will prevent arms and wrists from being burnt by the lime. Fastening the wrist tabs on the rain coat will secure the coat sleeves around the gloves and give added protection without having to duct tape the sleeves.
- When task is completed
 - Ensure everyone washes hands, arms, face and remove any clothing that has become wet with whitewash solution to prevent skin irritation or burns.
 - Ensure all PPE used is washed, dried and stored properly.
 - Coordinate with your HA representative to establish the time lapse to allow the solution to dry on the surfaces to ensure full efficacy before repopulating the barns and start of normal activities by technicians.



Whitewash Formula:

1lb of lime + 1floz. Of Synergize per Gallon of Water

Materials:

50 lbs of lime; 1 - 55 gallon barrel* to mix lime in; ½ hp submersible pump; 1 hp booster pump; 50 fluid oz. of Synergize disinfectant; sprayer tip for hose, 100 feet of hose, 50 ft extension cord, drill, mixing paddle, and hose connecting booster pump to submersible pump. Application time is 30 minutes and requires 55 gallons of solution which includes chutes and walkways (~250ft).

For farrowing barns you will need to measure the feet in the room to determine number of containers of lime solution you will need. **Note: 1, 55 gallon container of lime solution will only cover 1500 sq. feet of space.**

Mixing:

1. Ratio of lime to water is 1:1 (50 lbs of lime to 50 gallons of water).
 - a. Add 25 gallons of water (halfway) to 1, 55 gallon barrel.
 - b. Add one 50lb bags of lime into the barrel. Place 1 bag of lime across top of barrel with one end over center of barrel. Cut across bottom end of bag allowing lime to slowly dump into water. Lift bag up to empty all contents into water. Must empty slowly to prevent a sudden cloud of lime dust rising up into face of employee. Do not shake bag to empty.
 - c. Mix well with paddle mixer and drill.
 - d. Fill the barrel with 25 more gallons of water and continue mixing.
 - e. In one 50 gallon barrel there should be 50 gallons of water and 50 lbs of lime.
 - f. Repeat steps a-d with the remaining 3 barrels or number needed to cover square feet of room.
 - g. Use up all solution as soon as possible after mixing. The longer the mixing sits, the more lime will fall out of suspension and not ensure an adequate coating of surfaces.
2. Ratio of Synergize disinfectant to water is 1:1. Mix 50 fl. Oz. Synergize with 50 gallons of water/lime solution.
 - a. Add the disinfectant to the water/lime solution just before actual lime-wash application.
3. A container of lime solution should cover at least 1500 sq. ft.
4. Mix together with the paddle mixer. MIX WELL. Then apply.

Important Note: If the coverage film created with the lime mixture does not 100% whitens the covered surfaces, a reevaluation of the formula to increase lime/water ratio will be done by the Veterinarian and Technical Teams.

*Additional options for mixing vessels can be considered.