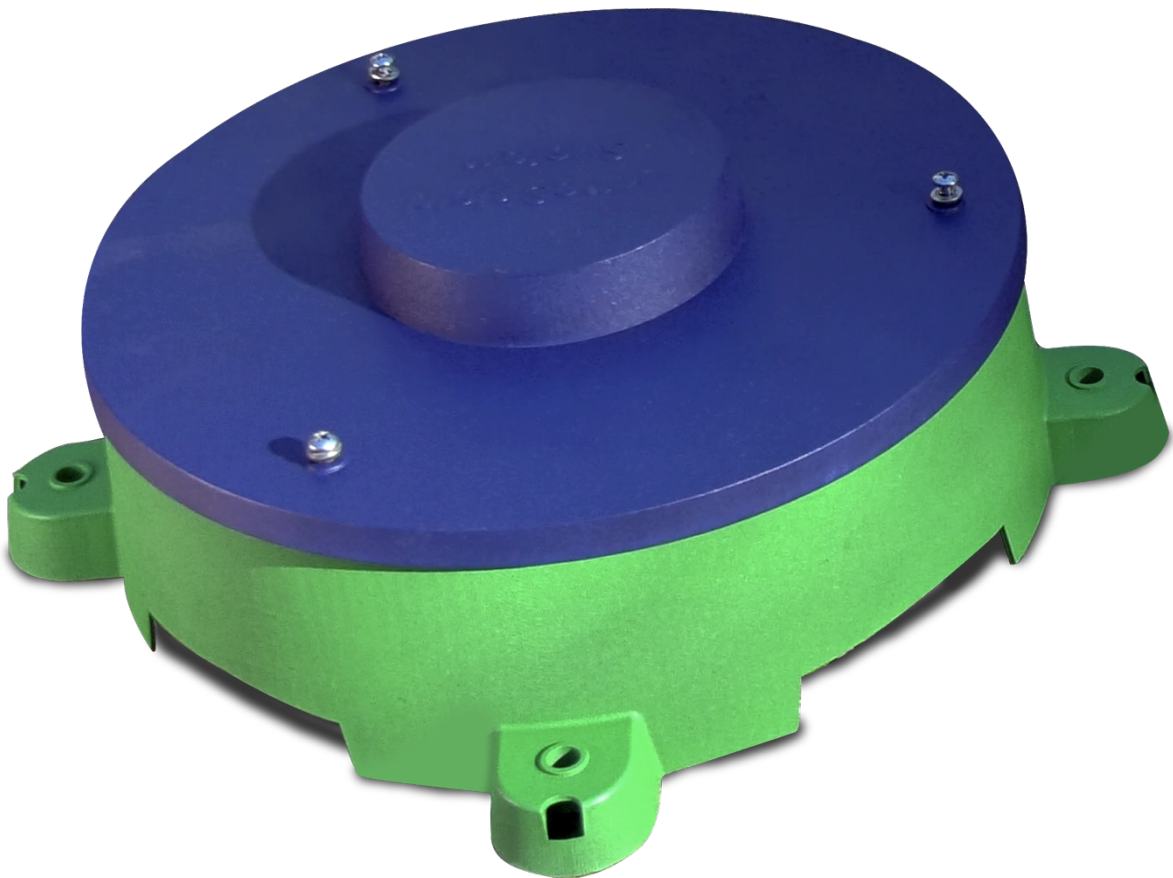




## Policies & Procedures

### The *US BIOLOGIC* LymeShield® System



# LymeShield®

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## PRODUCTS

- LymeShield System station
- USDA-approved vaccine-covered pellets containing *Borrelia bacterin*

## LICENSING

The LymeShield System does not require a special pesticide applicator license. The *Borrelia bacterin* (active ingredient on the bait) is licensed by the USDA.

## ADDITIONAL EQUIPMENT NEEDED

- Phillips screwdriver, concrete paver, drill, and drill bit (for concrete)

## LYMESHIELD SYSTEM COMPONENTS

- Station (pellet housing and carousel)
- Lid
- Three Phillips head screws
- Three AAA batteries
- Four concrete screws





## I. INSTALLATION

### **Schedule:**

You will ideally install the systems in spring and perform quarterly refills and maintenance checks. Though early spring is ideal, this station can be installed at any time of the year.

### **Number of Units Installed per Property:**

- In general, one LymeShield System station will be installed per ½ acre lot. Two or more stations may be needed in locations with large (1 acre or more) back yards.

### **Installation Locations:**

- Around the edge of the property's back yard, within the ecotone area. The ecotone area is the area where grass and manicured landscaping ends and shrubs, long grass, and more wild area begins.
  - In mouse harborage areas, specifically under shrubbery or foliage, but still accessible to servicing.
  - A minimum of 20 feet between stations, if using more than one station.
  - Ideal placement areas will be:
    - Relatively dry and flat.
    - Limited amount of debris (e.g., fallen branches, leaf piles) under LymeShield System station.
    - Short grassy areas that are sheltered, under shrubs, etc.
- Personal Protective Equipment (PPE) required:**

No additional PPE is required by the label. It is recommended to wear disposable gloves when accessing, refilling, or otherwise handling the pellets. All standard PPE for other pest control services must still be used for those purposes.

## INSTALLATION PROCESS



Figure 1

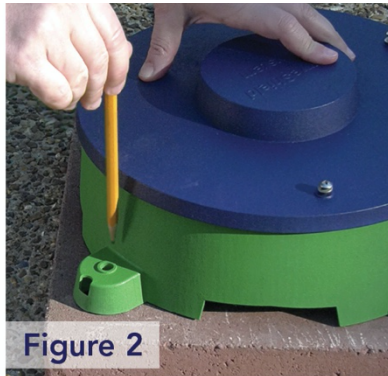


Figure 2



Figure 3



Figure 4



Figure 5



Figure 6

- 1) At the office/warehouse, attach the station to a concrete paver stone. Use a drill with the appropriate drill bit to pre-drill four holes in the block. Using concrete screws, attach the four holes in the legs of the station to the concrete paver. Do this prior to arriving at the customer's location.
- 2) Once at the customer location, choose the appropriate location to install the LymeShield System stations (per above).
- 3) Unscrew the three screws holding the black lid on the station. Install the 3 AAA batteries on top of the carousel. The LymeShield System station will run a station check and move through all 6 compartments. The carousel will then return to the start position.
- 4) Using the pre-filled bait container, evenly fill the six empty chambers with the vaccine pellets. The container is dosed to be precisely what is needed for one LymeShield System station. Do not fill the chamber higher than the LymeShield System station's walls.
- 5) Once filled, place the lid, aligning the three lid screw holes with the main pellet housing, and screw in the screws. Do not over-tighten the screws.
- 6) Installation is complete.

***After completing installation of the LymeShield System on the property, complete all other scheduled tick or pest service tasks.***



## MAINTENANCE

### **During normally scheduled (monthly) customer visits:**

On each visit, locate and briefly visually inspect the LymeShield System stations to ensure the stations are still in their original locations and that the stations have not received noticeable external damage.

### **If the LymeShield System station has been displaced:**

Return the LymeShield System station to its original location if the location is still appropriate. If necessary, relocate to a more suitable location.

### **If the LymeShield System station has undergone obvious external damage:**

Replace the LymeShield System station per the installation instructions above and return the damaged station to US Biologic.

### **During your regularly scheduled quarterly visit:**

- 1) Examine the LymeShield System stations to ensure it is in its original location and not externally damaged. Refer to previous statements if moved/damaged.
- 2) Leaving the station in place, open the LymeShield System station by removing the three external screws.
- 3) If bait remains in the station, remove it to a trash bag and dispose of it back at the office/warehouse.
- 4) Remove / re-install at least one battery, which will initiate a station check. The center console will rotate through all the chambers and return to the starting point.
- 5) Refill the station with one container of bait pellets. One container will precisely fill one LymeShield System station. Ensure the bait is evenly distributed in all chambers so the lid will fit back on.
- 6) Replace the lid with the three screws as noted above.
- 7) Document all relevant information.

## STORAGE

The LymeShield stations can be stored with no concerns. The pellets should be stored at room temperature in a dry location. Pellets are active for approximately one year and the expiration date is printed on the container. Use FIFO (first in, first out) procedures when performing quarterly services.



## EXEMPTION HANDLING/TROUBLESHOOTING

### **If the LymeShield System station is not functioning / the carousel does not return to the #1 start position:**

If a flashing red warning light displays on the circuit board during the station check, replace the batteries, which will initiate a station check. If a solid red warning light displays on the circuit board during the station check, clear debris, remove / re-install at least one battery to cause the station check.

If the red warning light continues to display, replace the station and return it to US Biologic.

### **If you see obvious external damage:**

Replace the station.

### **If you find an expired animal in the station:**

Dispose of the carcass per normal protocol.

### **Water has entered the LymeShield System station, and the pellets have liquefied:**

Empty the bait material into a plastic trash bag and throw away when you return to the office; do not throw away in customer's trash. Refill the LymeShield System station with one container of bait. Then move the LymeShield System station to another location, less prone to water issues, per the installation instructions above.

It is possible the carousel and batteries also may have been exposed to too much water, so it's essential to test the station by removing / replacing at least one battery to initiate a station check prior to filling with bait.

### **The LymeShield System station is still full of pellets:**

Remove all uneaten bait to a trash bag and dispose of it back at the office/warehouse. Test the station by clearing any possible carousel obstruction and removing / re-installing at least one battery as noted above. If a red warning light is observed, replace the station.

If the carousel door cycles as expected, the LymeShield System station has likely been placed in an area where there are few or no mice. In this case, move the LymeShield System station to another part of the property where mice are likely to reside.

### **Insects or other debris are present in the station:**

Discard any debris found in the LymeShield System station according to the standard policy and refill the vaccine pellets. The presence of insects will not impact the effectiveness of the vaccine pellets.

### **A tick and/or mosquito treatment is scheduled for the site:**

Go ahead and treat, the treatment will not affect the station or the pellets inside. You should place and/or service the station first, then do the treatment last.

### **The station was tipped over:**

Sometimes larger animals will try to get to the stations. Evaluate the area and if it is still a good location, upright the station and service as needed.



**There are no good locations to place the station:**

If there is no suitable location in the back yard, consider areas to the side. Refer back to the placement guidelines.

**The customer has dogs that frequent the yard:**

Dogs, pets, and other large mammals are not a problem. With the station secured to the paver, they cannot access the pellets.

**The customer has a landscaping company that maintains their property:**

The stations should be placed in non-manicured areas of the property. Place in ecotone areas that have more brush, long grass, and other areas where the landscape crews are unlikely to manage.

**The customer renovated their yard and removed the station:**

Ask the customer to save the station and on the next visit, find a different suitable location.

**It's past spring and now into summer (or fall), can I still install a new station:**

It's ideal to start in spring when mice and ticks become active, however, this is a year-round system: it can be installed at any time. When you first install the system, set reminders to ensure you don't miss a quarterly service.

**I can't find the station on the quarterly service:**

Inspect the area at least 20 feet in all directions. Talk to the customer and find out if they removed it. Replace with a new station if the old one can't be located.

**There is snow on the ground and covering the station:**

Mice are still active in the winter and studies have shown they will still consume the pellets in winter months. Continue with regular quarterly services of the stations. In areas with heavy snowfall, it can be helpful to place a small flag or other marker (prior to first snow) near the station so it can be located more easily.

## **RECORD KEEPING**

Discuss with your manager and follow all state and federal regulations.

## **ALL OTHER QUESTIONS**

Direct any concerns and/or questions to US Biologic.

For more information on the stations, vaccine pellets, and the overall system, visit us at [USBiologic.com](http://USBiologic.com) and contact us with any questions or if you would like any additional information.