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CAWST is a Canadian non-profit organization focused on the principle that clean water changes lives. Safe water and basic sanitation are fundamentals necessary to empower the world's poorest people and break the cycle of poverty. CAWST believes that the place to start is to teach people the skills they need to have safe water in their homes.

CAWST transfers knowledge and skills to organizations and individuals in developing countries through education, training and consulting services. This ever expanding network can motivate individual households to take action to meet their own water and sanitation needs.

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This presentation is used with Lesson
Plan 12:

The 8 Important Points to Check in
the Biosand Filter for Technicians
Trainer Manual.

Available at www.cawst.org/resources



BSF: 8 Important Points to Check



Learning Expectations

1. List and explain the importance of the 8 important points to check to see if a biosand filter is working well.



Important Points to Check

If you were going to check a filter in a home, what would you check to see if users are using it correctly?

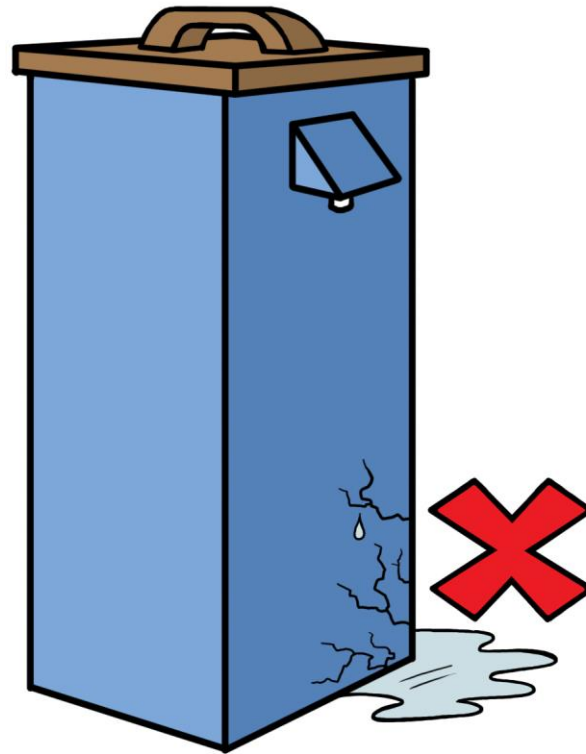
How can you tell if the filter is treating the water well?

There are 8 important points you can check to see if the filter is working well.



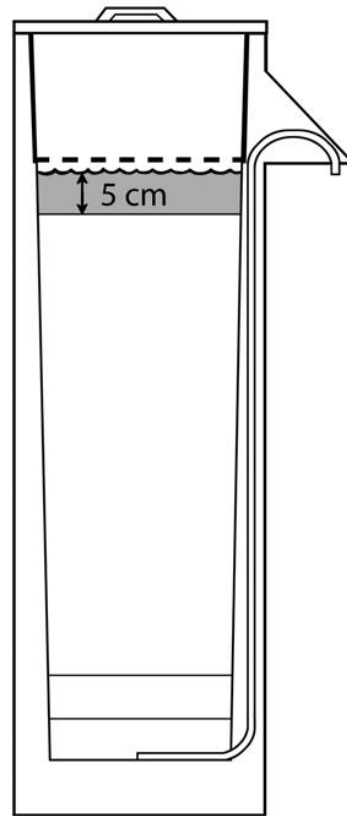
Important Points to Check

1. No leaks.



Important Points to Check

2. Standing water depth is between 4 cm and 6 cm.

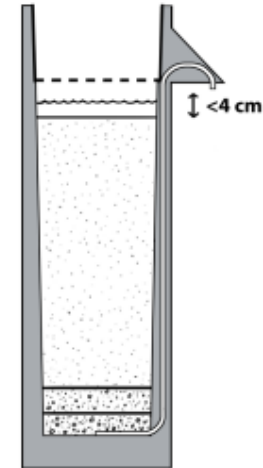


Important Points to Check

What would happen if the water was:

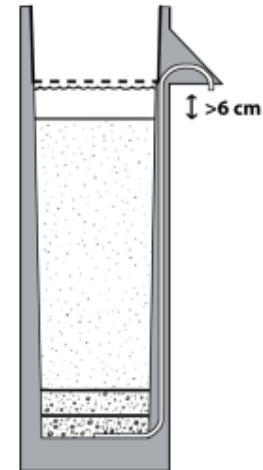
A. Too shallow?

- Biolayer may dry out and die



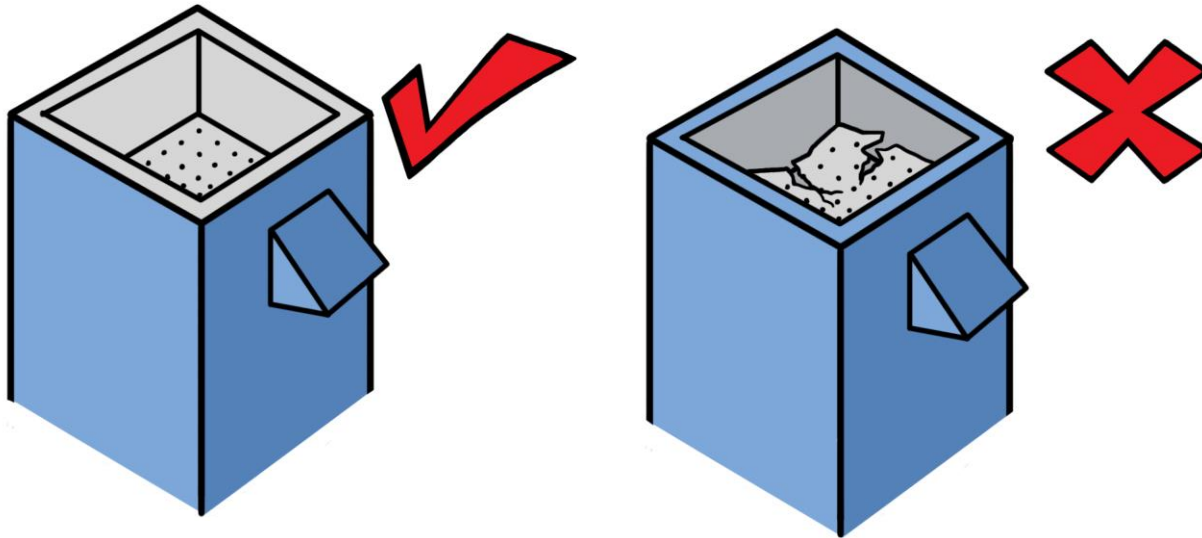
B. Too deep?

- Not enough oxygen gets to the biolayer



Important Points to Check

3. Diffuser is in good condition.

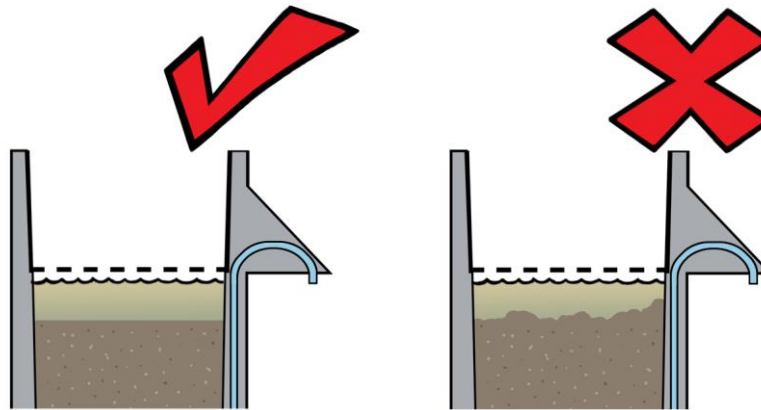


If it isn't what could happen?

The biolayer could be harmed.

Important Points to Check

4. Top of sand is level.



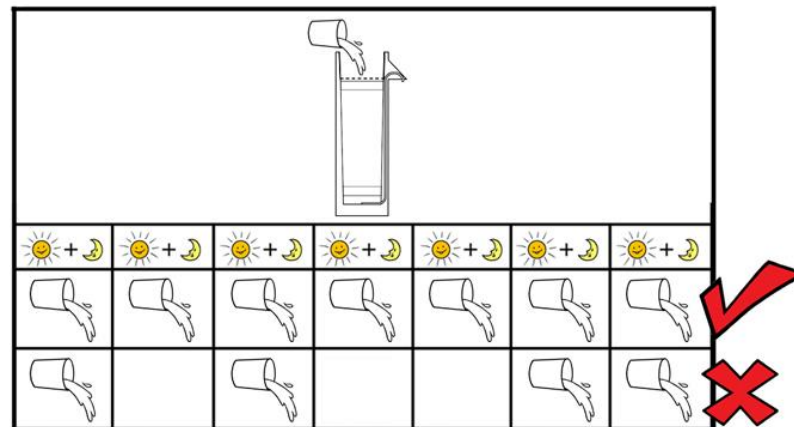
What does this tell us?

The diffuser is working well.



Important Points to Check

5. Filter used at least once a day.



Why is this important?

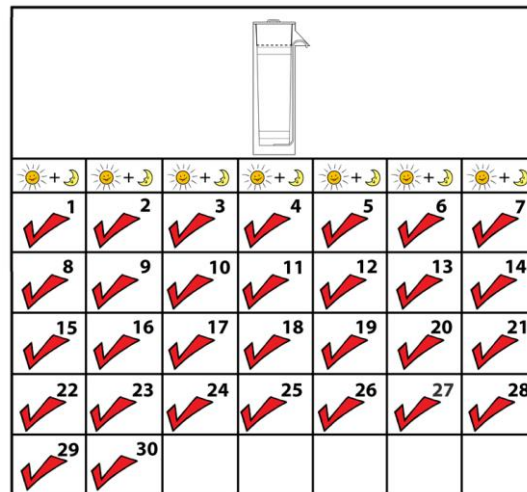
The biolayer needs a fresh dose of food and oxygen at least once a day.



The standing water may evaporate.

Important Points to Check

6. The filter has been used for at least one month since installation



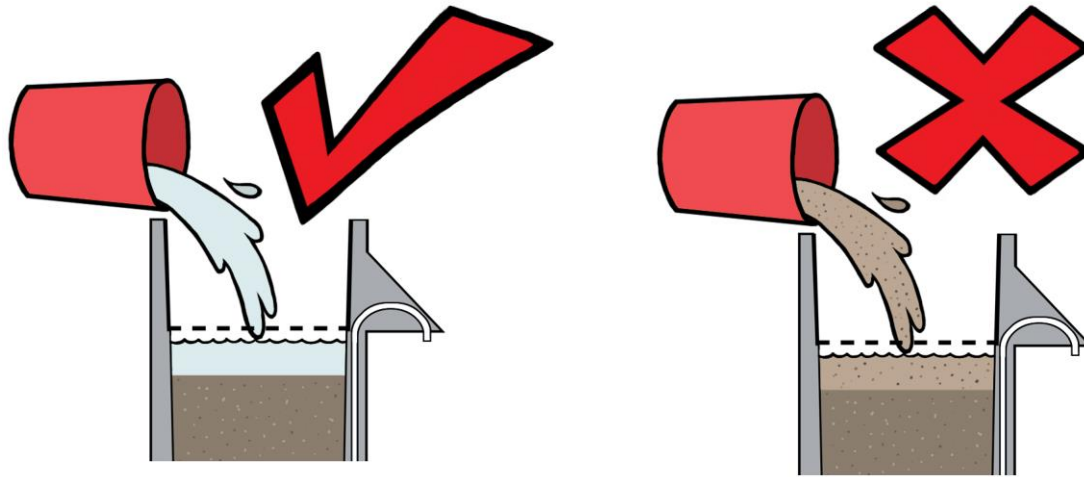
Why is this important?

The biolayer takes one month to grow. The filter is not working at its best until then.



Important Points to Check

7. The water poured into the filter is clear.



What will happen if dirty, cloudy water is poured into the filter?

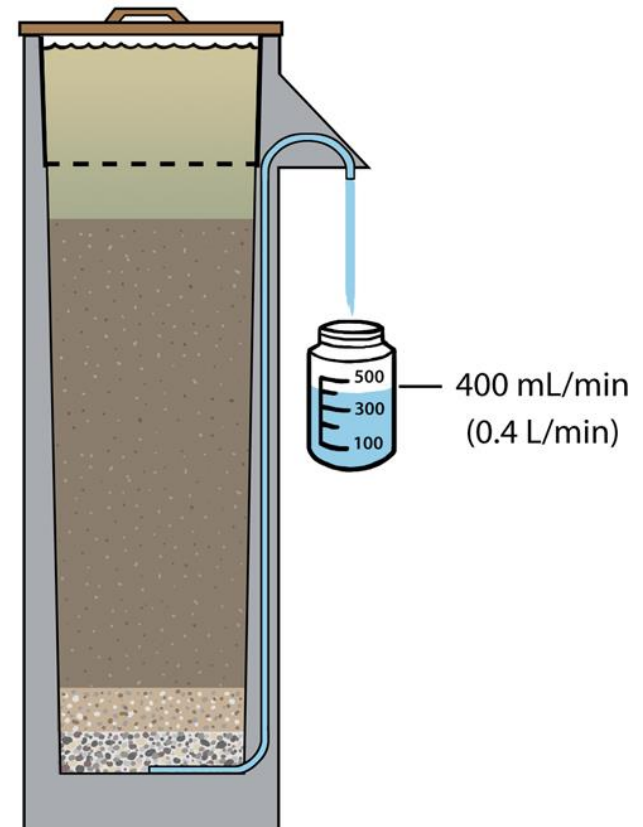
The sand will clog with dirt, and the flow will become very slow.



Important Points to Check

- Flow rate should be **400 mL or less per minute** (for Version 10 filters).

If you are catching the water in a 1 L bottle, it should take 2 minutes and 30 seconds or longer to fill the bottle.



Important Points to Check

Why is the flow rate important?

If the water is flowing too fast, not as many pathogens are removed from the water.



Review

Without testing the water for bacteria, how can you know the filter is working well?

Check the 8 important points with the user.



Review

During a house visit, what 8 important points will you check to know the filter is working well?

Write a list and then we will go back to each slide to check.

