Easy and Effective Sanitizer Mixture

Disclaimer:
This material is for general information purposes only. These guidelines are what the Bruce D. Campbell Farm and Food Discovery Centre (FFDC) uses as a certified commercial kitchen. The mixture amounts are as suggested from our Certified Public Health Inspector in Manitoba. The added suggestions are those from our Acting Manager. Who gained this knowledge and experience from her Bachelor of Science in Food Science, instructing one of Manitoba’s Food Handler Certificate Courses and working in many food service establishments. The opinions expressed are not necessarily reflective of those of the University of Manitoba (UofM). FFDC and UofM take no responsibility in the effectiveness or safety of mixing your own sanitizer. Please take care and caution when using chemicals, and read the label fully before making your own mixture.

Supplies Needed:
- Bleach
- Warm Water
- Strong Bucket or Spray Bottle
- Cloth or paper towels

Instructions and Suggestions:
- First, select a bucket or spray bottle that you will use for this only! Do not use a receptacle you will eventually use to store food. Bleach is a chemical, and although once diluted and evaporated it is safe for counters and your skin, you should never put food in the container after it has held a chemical. A suggestion is a clean and strong cleaning basin or a strong spray bottle designed to hold bleach containing components (but one that has not previously been used for something else).
- Add around 1 TBSP of bleach to 1 L of running warm water. DO NOT use a measuring spoon that you use to cook. Your best estimation is fine. We like to pour some into the beach bottle’s cap to measure - 1 capful is roughly 1 TBSP
- More is not better in this case!
  - Adding more bleach will not make this solution any more effective. Too much bleach might actually hurt your skin and would just be wasting the bleach.
  - An effective sanitizer of bleach and water should have a concentration of 100 ppm (parts per million)
  - The 1 TBSP bleach to 1 Litre water mixture takes into account that older bleach may not be as effective as a brand new bottle. This mixture will still be effective
on bottles that are 6 months to 1 year old. Check out the image below, our bleach is a year old and 1 capful in 1 L gave us a 100 ppm concentration

How to use your sanitizer:

- If you are using a bucket/basin:
  - Grab a cloth or rag and store it in the bucket while using.
  - Wipe down your counter top with the wet cloth and let it air dry.
  - Keep the sanitizer bucket in the sink or on a table away from where you are preparing your food so you do not accidentally spill the sanitizer onto your food.
  - Let the counter top air dry completely. This gives the sanitizer the time it needs to kill any microbes.
  - Keep your cloth in the sanitizer solution when you’re not using it.
  - You will need to remake this sanitizer every few hours because the longer the sanitizer is exposed to oxygen, the more it loses its cleaning power.

- If you are using a spray bottle:
  - Spray down your surface making it very damp.
  - Use a clean paper towel to spread the sanitizer all over the surface. Let it air dry completely. This gives the sanitizer the time it needs to kill any microbes.
  - Use a new paper towel each time.
  - This bleach can last up to a week in your spray bottle, as it is not exposed to oxygen. If you are not using it daily, try making a half recipe so that you are not wasting your solution.
How we mix our sanitizer:

1. Add some warm water to your bottle.
2. Pour bleach into the cap (1 cap = ~1 TBSP).
3. Pour bleach into the spray bottle.
4. Add the remaining 1L of warm water to the bottle.
5. Supplies Used:
   - Water
   - Bleach
   - Spray bottle
6. Test of the Concentration showing 100 ppm.

Check out our other resources available at https://umanitoba.ca/faculties/afs/discovery_centre/at-home-learning-resources.html

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