Procedure 1. Morning:

1. Proceed to the hut to collect the sugar water feeder. Bring it back, wash and keep aside.
2. Go to Flightcage 1 first. Check to see if bats are in good condition and not too weak to fly or on the floor, etc. Take a look at the bats to see if they all still have their transponder collars. Note this down in the log book
3. Move the pc cursor to activate the screen and check if any of the green lights from the flowers are on. Normally no green lights (LS1-LS8) should be visible unless a nose-poke occurs. If you see a light that is on, check to see if the infrared sensor is blocked by nectar or other residue. Write this down in the lab-book.
4. Check to see if there are big air bubbles in the tubing system, including the syringe. If yes, write this down.
5. Also check if the silicon tubes are connected to the flowers. If not, write this down.
6. Disconnect the tubes from the flower heads. Make test visits at all the flowers and notice if reward delivery occurs according to the programmed config file. If not, write this down.
7. Copy the results file on a USB Flash Drive.
8. Quit the program. Remove the USB pen drive after copying the data before starting the next program.
9. Remove the nectar container. Discard the nectar.
10. Open the flush program. Open the Waste valve and take the syringe out of the holder and manually empty it with the program.
11. Place the syringe back in its holder, close the Waste valve and start the Clear procedure.
12. Go to Flightcage 2 and repeat all the above steps.
13. Go back to Flight cage 1 and when the Clear cycle is finished take out the syringe and wash it thoroughly with water.
14. Replace it, open the Water valve and fill it partly with water. Close the Water valve, open the Waste valve and empty the syringe completely.
15. Place the syringe back in its holder, screw it in place and start the procedure “Water cleaning”.
16. On flushing days (every third day): proceed with Rinsing (Procedure 3). On non-flushing days proceed as follows.
17. Cover the electronic equipment with garbage bags, go to Flightcage 2 and repeat steps 12-14.
18. Cover the electronics in Flightcage 2 with garbage bags. The systems can now be left until the afternoon.

Procedure 2. Afternoon:

1. Carry out the procedures described in the Soup Kitchen Procedures.
2. In both flightcages the water needs to be removed and the system refilled with fresh nectar. Begin with Flightcage 1 and perform the clear procedure as described in the Morning procedure. Repeat in Flightcage 2.
3. In Flightcage 1, place the fresh nectar container on the shelf and put the nectar tube into the container and make sure it goes all the way to the bottom.
4. Take the syringe out of its holder. Open the Nectar valve and draw some nectar into the syringe manually. Close the Nectar valve, open the Waste valve and empty the syringe completely.
5. Place the syringe back in the holder and start the procedure “fillNectar”.
6. Repeat steps 2-4 in Flightcage2.
7. Go back to Flightcage1 and refill the syringe completely with nectar.
8. Load the appropriate config file for the day in PhenoSoft. When this is finished, make sure the valves are clicking.
9. Fix the tubes to the flower heads and perform test visits to the flowers according to the program for the day.
10. Make sure the nectar has reached hole in the flower head.
11. Final check: see if there is fresh extra food put out; see if there are bubbles in the system; see if the tubes are connected to the flowers; see if the correct program is loaded and if the electronics are covered by plastic.
12. Repeat steps 7-11 in Flightcage2.

Procedure 3. Rinsing (Every Third Day)

About every third day the whole system should be cleaned with alcohol and sufficiently rinsed to kill and remove microorganisms building up in the tubes.

1. Once the system has filled with water, perform the Clear procedure again to get the water out.
2. Open the Waste valve and take the syringe out of the holder and manually empty it.
3. Close the Waste valve. Open the bottle of 70% Ethanol and place the Alcohol tube in the Ethanol.
4. Open the Alcohol valve and draw alcohol into the syringe manually. The solution should appear milky white. Unscrew the syringe, empty it and screw it back. Repeat this until the alcohol flows clearly into the syringe. Close the Alcohol valve.
5. Place the syringe back in the holder. Start the fillAlcohol procedure.
6. Leave the system and come back after about 1.5 hours.
7. Perform another Clear procedure to get rid of the Alcohol.
8. Proceed with steps 13-15 of the Morning Procedure. Now the system can be left until the afternoon, when the normal afternoon procedure can be carried out.

Procedure 4. Soup Kitchen

1. Prepare sugar solutions for today's experiment (see table below).
2. Provide extra food for the animals:
    a. 1 mL water per bat
    b. 300 mg Folgemilch per bat
    c. 0.25 mL honey per bat
3. Provide pollen.

target (° brix)		10	15	20	25	28	30	35	40	42	45
water mass (g)	200							112	138	150	171
	300	33	59	82	107	125	137	168	207	227	256
	400	44	79	109	142	162	183				

sugar mix mass (g)