ASF Sample Collector Manual

1. **Conditions**
    a. **Outbreaks:** Number of farms with a detected case of ASF outbreak.
        i. Observed Value: The user can input the number of ASF outbreaks happening today. Single numeric value only.
    b. **Farms in Control Zones:** Number of farms that are in the infected zone, buffer zone or surveillance zone surrounding an ASF positive farm.
        i. Observed Value: The user can input the total number of farms in the control zones of ASF positive farms. Single numeric value only. If an observed value is provided, the estimated value will be ignored.
        ii. Estimated Value: If the user inputs the number of outbreaks but does not input the number of farms in the control zones, the number of farms will be estimated based on the average number of farms in the control zones for simulated outbreaks in NC state. The estimate shows median and (0.5% - 99.5%) quantiles. Cannot be changed by the user.
    c. **Farms in Contact Tracing:** Number of farms that were in direct or indirect contact with an ASF positive farm.
        i. Observed Value: The user can input the total number of farms that have been in contact with ASF positive farms. Single numeric value only. If an observed value is provided, the estimated value will be ignored.
        ii. Estimated Value: If the user inputs the number of outbreaks but does not input the number of farms in the contact tracing, the number of farms will be estimated based on the average number of farms that have been in contact with ASF positive farms for simulated outbreaks in NC state. The estimate shows median and (0.5% - 99.5%) quantiles. Cannot be changed by the user.
    d. **Regular working schedule:** Regular number of hours a sample collector can work per day.
        i. Value: Up to 12 hours. Cannot be changed by the user.
    e. **Time per sampling:** Number of minutes a sample collector needs to collect one sample at the farm.
        i. Value: 5 minutes. Cannot be changed by the user.
    f. **Downtime:** Number of hours a sample collector is unavailable after finishing the sampling on a farm.
        i. Value: 72 hours. Cannot be changed by the user.
    g. **Collected sample size:** Number of samples that needs to be collected from a barn.
        i. Value: 31 blood samples or 5 oral fluid samples. Cannot be changed by the user.

2. **Outputs**
    a. **Sample collectors needed to collect blood samples:** Total number of trained personnel to collect ASFV blood samples.

i. Estimated Value: The total number of sample collectors is estimated based on the average number of hours sample collectors work, the time it takes to collect a single sample and the total number of samples to be collected. The estimate shows median and (0.5% - 99.5%) quantiles. Cannot be changed by the user.

b. **Sample collectors needed to collect oral fluid samples:** Total number of trained personnel to collect ASFV oral fluid samples
   i. Estimated Value: Same calculation as the blood samples but uses oral fluid sampling, which requires less samples per barn. The estimate shows median and (0.5% - 99.5%) quantiles. Cannot be changed by the user.

c. **Blood samples to be collected:** Total number of blood samples collected for the current day.
   i. Estimated Value: The total number of samples is estimated based on the number of farms needed sampling, average number of barns in each farm and the number of samples to be collected for each barn. The estimate shows median and (0.5% - 99.5%) quantiles. Cannot be changed by the user.

d. **Oral fluid samples to be collected:** Total number of oral fluid samples collected for the current day.
   i. Estimated Value: Same calculation as the blood samples but uses oral fluid sampling, which requires less samples per barn. The estimate shows median and (0.5% - 99.5%) quantiles. Cannot be changed by the user.