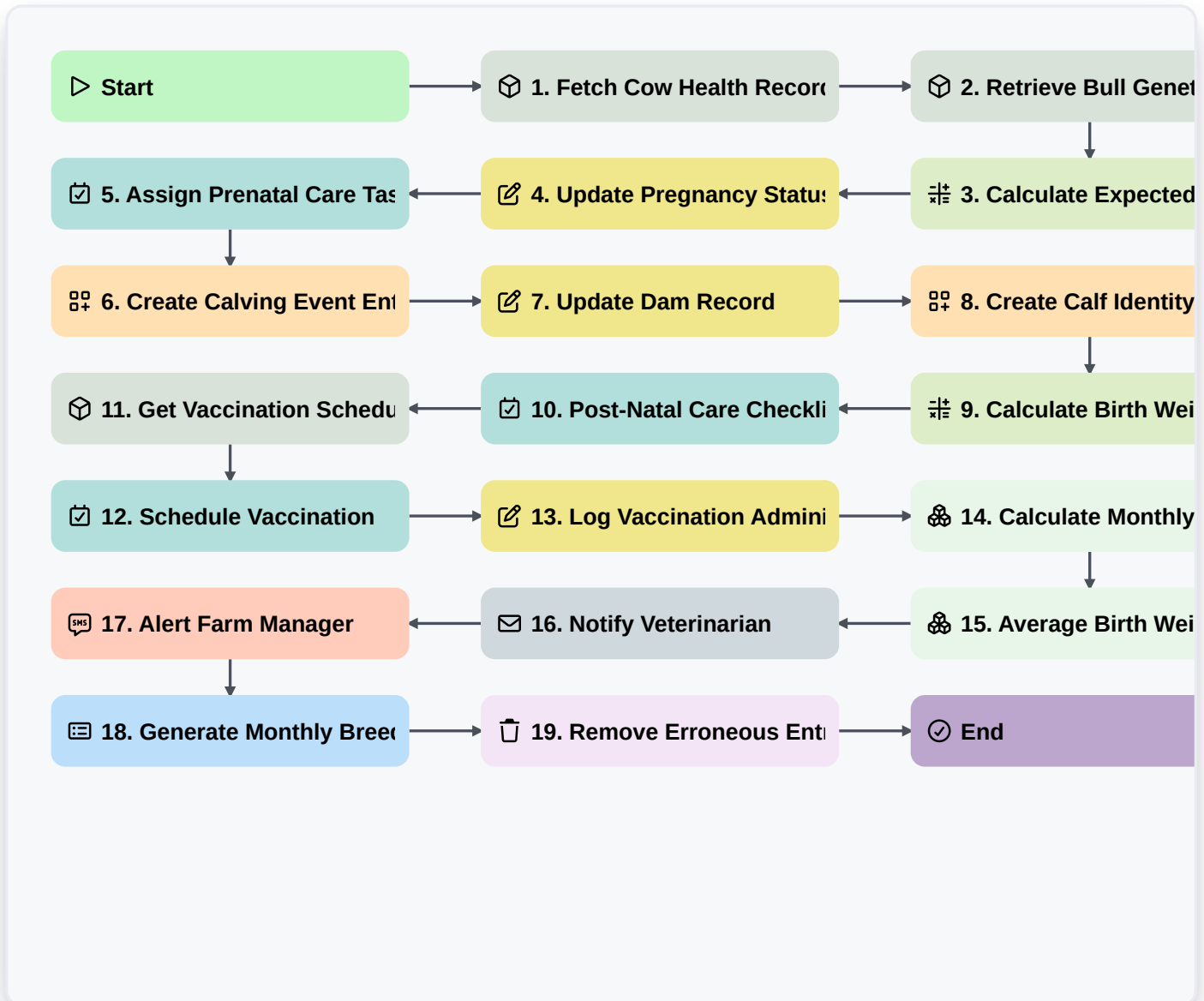


Livestock Breeding And Calving Management Workflow



▶ Start

Start of the Workflow/Process.

📦 1. Fetch Cow Health Records

Retrieve historical health and breeding data for the specific cow being processed.

📦 2. Retrieve Bull Genetics Data

Fetch genetic information of the sire to predict potential calf traits.

📅 3. Calculate Expected Due Date (EDD)

Add 283 days to the detected insemination date to determine the calving deadline.

📝 4. Update Pregnancy Status

Update the cow's status to 'Pregnant' in the Livestock Data Model following a successful vet check.

📅 5. Assign Prenatal Care Task

Create a task for the Farm Hand to perform routine ultrasound or physical checks.



6. Create Calving Event Entry

Generate a new entry in the Calving Log when a birth is recorded.

7. Update Dam Record

Update the mother's record to include the new calf ID and birth date.

8. Create Calf Identity Entry

Create a new entry in the Animal Data Model for the newborn calf with initial vitals.

9. Calculate Birth Weight

Calculate the difference between maternal weight and current calf weight if needed, or process birth weight metrics.

10. Post-Natal Care Checklist

Create a task containing a checklist for umbilical cord care, colostrum feeding, and weight monitoring.

11. Get Vaccination Schedule

Retrieve the predefined vaccination protocol for the specific age of the calf.

12. Schedule Vaccination

Create a task for the Vet/Technician to administer required vaccines.

13. Log Vaccination Administration

Update the calf's medical history with the date and batch number of the vaccine used.

14. Calculate Monthly Calving Rate

Aggregate all 'Calving Event' entries to calculate the total number of births this month.

15. Average Birth Weight Trend

Calculate the average birth weight of all calves in the current season to monitor herd health.

16. Notify Veterinarian

Send an email alert to the vet if a 'Difficult Calving' (Dystocia) task is flagged.

17. Alert Farm Manager

Send an SMS to the manager when a high-value calf is successfully registered in the system.

18. Generate Monthly Breeding Report

Generate a summary report of insemination success rates and pregnancy losses.

19. Remove Erroneous Entry

Delete a duplicate or incorrectly entered calving record from the system.

End

End of the Workflow/Process.