APHEYA ANIMAL NUTRITION

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HACCP Template

1. HACCP Team

List the team members, including:

- Roles
- Qualifications, including HACCP Qualifications
- Experience

2. Product Description

A description of the feed produced by the feed business operator. Consider including characteristics such as:

- Key analytical constituents -Moisture content/available water, pH, sugar content
- Key processes – e.g. heat treatment
- Shelf life
- List of raw materials, or groups of raw materials, including key considerations such as medication, fishmeal
- List of reasonably foreseeable hazards to be considered

3. Intended Use

Describe the intended use of the feed: which species/groups do you intend to eat your product?

4. Flow Diagram

Draw a flow diagram of the process steps involved in the production of your feeds. Make sure you include all steps: Remember…

- Include processes rather than individual pieces of equipment
- Do not include controls or checks made on the process (e.g. 'visual inspection, sampling)
- Include rework and waste streams
- If a large number of raw materials are used, group together the intake processes and carry out a separate raw material risk assessment

5. Confirm the flow diagram is correct

Check the process whilst in operation, follow the rework, speak to the operators, obtain confirmation from engineer. HACCP Team to sign the flow diagram.

6. Carry out hazard analysis and put in place control measures to eliminate hazards or reduce them to a safe level

1. Using the list of hazards from (2) and the flow diagram from (4), carry out a systematic analysis of each process step, considering all hazards at all process steps. Remember P.I.G.S – Could the hazard be **Present** in the raw material? Could it be **Introduced** into the feed from cross contamination/error/equipment failure? Could it **Grow** in the feed? Could it **Survive** a step specifically designed to eliminate/reduce a hazard?
2. Carry out a risk assessment of all identified hazards, using likelihood vs severity assessment. This will determine whether hazards are significant or non significant.
3. Establish the control measures required to prevent, eliminate or reduce hazards to a safe level. This will involve the establishment of both **Pre-requisite programmes** and controls at specific steps in the process. Allocate PRPs to non-significant hazards.

Process Step	Hazard	Control	Likelihood	Severity	Significant?

7. Identify Critical Control Points ('Wipeout!)

Take significant hazards forward to the HACCP chart to determine CCPs. CCPs can be determined by

- Codex decision tree or simplified decision tree
- Judgement and experience

CCPs are key process steps where failure would result in a 'wipeout'- at the last point where it can be identified and corrected.

Process Step	Hazard	Controls	CCP	Critical Limits	Monitoring Procedures	Corrective action

8. Determine Critical Limits

For CCPs only: Establish the criteria for acceptance of the product at the CCP. This can be

- A numerical measurement e.g. time, temperature, pH
- An observation

This should be documented in a 'Monitoring Procedure'.

9. Establish Monitoring Procedures

For CCPs only: Monitoring procedures or 'checks' should be established which check that control have not failed at the CCP. These are checks carried out in real-time (while the product is still on site) which will identify if a critical control has failed, and an unsafe product has been manufactured. Monitoring activities should assess whether a product has met the critical limit in (8).

This should be documented in a 'Monitoring Procedure': Who will check? How often will they check? How will they check? Do they need specialist equipment or training?

10. Establish Corrective Actions

For CCPs only: Actions which must be carried out in the event that the controls at a CCP fail. This is usually carried out by an operator, but also may be controlled by equipment (e.g. divert material). Actions include: Quarantine affected product, fix equipment, rework material, sell as a different specification, retrain staff, change process

Recall should not be necessary, as material should not have left the site. If it has, then monitoring was carried out too late, and monitoring frequency should be increased.

11. Establish Verification Activities

Validation -Support your claims with scientific evidence

Verification – Carry out a programme of sampling and analysis to check for the presence of hazards

- Carry out internal audits
- Assess data such as complaints, customer feedback

12. Documentation and Records

Monitoring and corrective action procedures should be documented. Training should be given to all employees who may be responsible for monitoring a CCP

Records should be established that can prove that all batches of feed successfully passed the monitoring checks at each CCP.

Other documentation: Pre-requisite programmes and other controls.