Report on Testing for Broken Food Pellets

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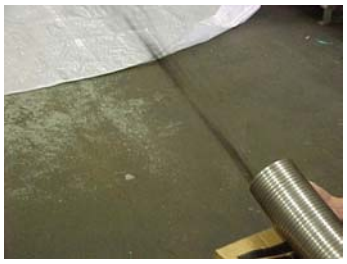

Test Set Up

The feed pellets were EWOS type size XL (11mm.)

They were launched from an IAS model Series 1000. The blower was powered by a 9Hp gasoline engine, running at 3600rpm and delivering air at velocity of 205 ft/sec through a 10' long 5" tube aimed up at approximately a 20° angle.

A 24' x 20' tarp was suspended by ropes approximately 50' from the launch tube so that it was at about a 45 degree angle to the floor. The launched food pellets hit this tarp, and slide down it onto a second tarp on the floor, thus minimizing the breakage due to impact.

Test Procedure

After being pre-sorted for any damaged or broken pellets, two 25 kg of feed was launched against the tarp in separate tests. Approximately 10 to 20% hit the floor tarp instead of the sloping tarp, which likely accounted for some of the breakage.

The pellets were gathered into a central area on the floor tarp, and sorted into three categories:

- Intact pellets
- Pellets broken during manufacture (distinguishable because the edges were all curved)
- Pellets broken during launch (distinguishable because the edges were all sharp)
- Fines (broken pieces smaller than 0.1")

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Summary

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First 25kg bag labeled #3

- .01% fines
- .07% broken pellets
- 99.03% total edible pellets

Second 25 kg bag labeled #4

- .03% fines
- .05% broken pellets

Conclusion

Delivering pellets through a five-inch delivery system that incorporates a centrifugal blower (high air volume, low air pressure) indicates that it may be the most appropriate system to deliver pelletised food with a minimum of abrasion and or breakage.99.02% total edible pellets