



Pellet stability at 85°C of OptiPhos® Plus G and CT in slowly cooled pellets at a Dutch feed mill

Trial description

1 Set-up

- **Location:** Commercial feed mill, the Netherlands
- **Trial period:** September 2019
- **Pelleting parameters:**
 - Conditioning 50-70 seconds at 85 °C.
 - 3 x 65 mm die.
 - Of each batch of 1500 kg feed, 5 feed samples were taking in the period 5 min after start and before finishing the pelleting of the batch. Samples were cooled by spreading over an empty paper bag at ambient temperature (22-25°C), which is a slower cooling process compared what is normally done at the feed mill (forced air-cooling = counter current column cooler type).
- **Broiler grower feed** (wheat/corn/soybean meal based).



Slow cooling by spreading feed from pelletiser on a bag on the floor (top view)

2 Treatments

- Blanc feed
- Blanc feed supplemented with OptiPhos® Plus G or CT to yield a final concentration of ± 1000 FTU/kg of feed.

3 Measurements

- Recovery = (Phytase in supplemented pellet – phytase in blanc pellet)/(phytase in supplemented mash – phytase in blanc mash) x 100 %

Results

Despite the slow cooling, it was calculated that:

- OptiPhos® Plus G has a recovery of 74 %.
- OptiPhos® Plus CT has a recovery of 91 %.

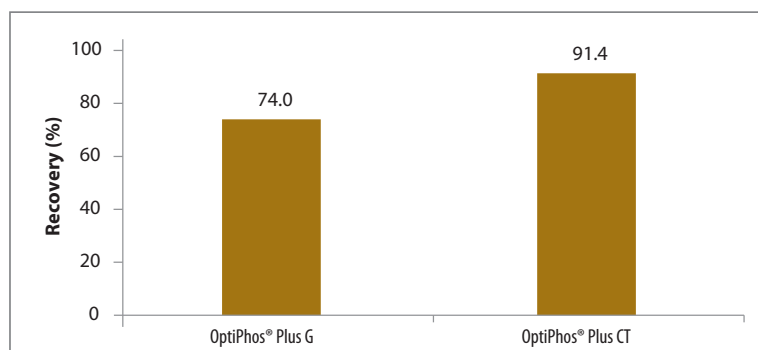


Fig. 1: Effect of pelleting at 85°C and slow cooling on recovery of OptiPhos® Plus G and CT

Conclusion

- Despite the slow cooling process, the recovery of OptiPhos® Plus CT (91%) is very good.
- In the case of OptiPhos® Plus G, a recovery of 74% is determined, which would surely have been higher in case constant and rapid cooling had been applied.