



AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

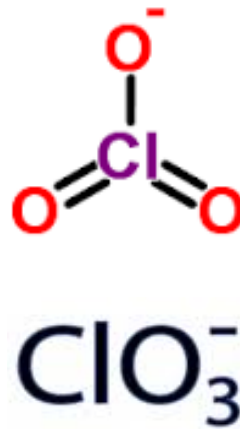
The Irish Agriculture and Food Development Authority

Milk & Product Quality Forum

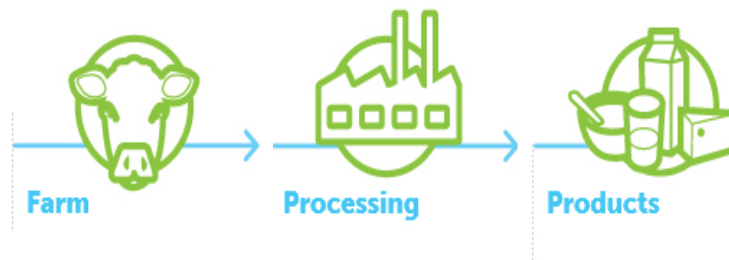


Workshop II on Chlorate in Milk & Dairy Products

4th May 2016



- EFSA 2015 Report::
Risk for Public Health Related to the Presence of Chlorate in Food
 - Tolerable Daily Intake (TDI) was not exceeded by adolescents and adults, but could be exceeded by infants and toddlers



Actions from WS I (Feb 2016)

At Processing Plant:

- In plant rinsing protocols to be reviewed to ensure sufficient rinsing to remove all residues from plant surface after cleaning
- Process for regular purchase of cleaning products to be put in place to ensure against old cleaning products with potential for elevated chlorate level
- Consideration be given to removal of hypochlorite as a cleaning agent within the processing plant
- Ensure the optimum quality of water for rinsing, e.g. does the observation that chlorate levels in water treated with chlorine gas is very low or absent hold up on further investigation and if so then the feasibility converting to chlorine gas treatment to be considered

Actions from WS I (Feb 2016)

By Milk Quality Advisor at Farm level:

- Re-enforce all of the information and checks previously advised for control of TCM in milk
- Advise on short storage of cleaning disinfectants before use on-farm
- Consider removal of sodium hypochlorite only products from farms as they are not required for daily cleaning wash routines

Actions from WS I (Feb 2016)

By Teagasc:

- Establish methodology to measure chlorate
- Confirm impact of freeze drying on chlorate formation
- Conduct pilot scale spray-drying trial to test the hypothesis that by combining good practices at farm and process level, a target level of 50ppb can be achieved in skim milk powder
- Investigate the effect of temperature, concentration and pH on the kinetics of chlorate generation
- Test a number of teat disinfectant products for chlorates
- Test impact of detergent/sterilizer recycling at farm level on chlorate levels
- Investigate further strategies for water treatment
- Investigate further approaches used to reduce chlorate in other EU countries.

Programme for Workshop II

Strategy for Water Treatment	– Victor van der Wald (Irish Water)
Methodology for Chlorate analysis	– Martin Danaher (Teagasc)
Chlorate at farm level	– David Gleeson (Teagasc)
Chlorate at processing level	– John Tobin (Teagasc)
International situation	– Aoife Moran (IDIA)
General Discussion/Action Points	– All