

MILK QUALITY FACTSHEET FIVE MAINTAINING LOW IODINE LEVELS IN MILK

Iodine is an essential nutrient for both animals and humans but is required only in minute quantities daily. It is needed by the thyroid gland. Traditionally, Ireland has had a higher level of iodine in raw milk. Avoiding excess levels of iodine is a critical issue for dairy products especially for infant formula production and is now well controlled and recognised across the Irish dairy industry.

In 2017 Teagasc issued new recommendations to aim for iodine levels in total for cows of 10 – 12 mg/cow / day. Extra iodine supplied to cows is excreted in urine and milk. Excess iodine is not stored in a cow and is effectively of little value to the farmer or the cow.

Approx. 120 ppb iodine in milk is ideal in typical dairy products.

Sources of iodine

- ✓ Cows get iodine from Forages, Concentrates, minerals, water additive systems, bolus, top-dressed on silage, applied directly on their flanks/ udders.
- ✓ Cows need 12 mg / day – rest is excreted out in milk or urine.

Feed

- ✓ Historically Ireland supplemented cows with 60 mg / cow / day (up to 2017) which was much higher than rates used globally which were 12 mg / cow / day.
- ✓ This was due to lower feeding levels traditionally used in Irish dairy cows diets.
- ✓ However research found that increased feeding rates will increase iodine levels in milk unless mineral mix has been reduced .
- ✓ Since 2017, feed additive levels have been reduced to target only feed 10 – 12 mg/ cow / day in concentrates.

Iodine teat disinfectants

Since 2017, Tirlán suppliers have been requested to replace iodine teat disinfectants with alternatives such as chlorhexidine or lactic acid based products.

Iodine based detergents for plant or bulk tank washing are no longer used in Ireland.

Bolus or water additives

Where suppliers are using boluses or water additives containing trace minerals, they are asked to balance the cow intake to ensure they are not getting iodine from here on top of feed iodine which would mean the cow is getting an excess of iodine.



How to maintain low iodine levels

- ✓ Aim to only feed 10 – 12 mg/ cow / day.
- ✓ Ensure all sources of iodine have been taken into account.
- ✓ If using concentrates don't add extra in the form of boluses or mineral top dressings or water additives.
- ✓ Match feeding rate with iodine rates.
- ✓ Do not over supplement.

For further information please contact your Milk Supply Manager or feed nutritionist for One-On-One advice and assistance.