



## INFORMATION FOR DAIRY FARMERS INTERESTED IN “Dairy Colostrum Project”

### Background

Bovine colostrum contains a range of compounds rich in nutritional, antimicrobial and growth properties which are essential for survival of the newborn calf. At present, the quality of bovine colostrum is determined by its immunoglobulin G (IgG) concentration. However, bovine colostrum is also extremely rich in IgA and IgM, and many other immune stimulating factors which aid control of infection and inflammation. Additionally colostrum also contains growth promoting elements such as transforming growth factors (TGF) and insulin-like growth factors (IGF) which aid cell proliferation and differentiation of tissues essential for calf development.

Good quality colostrum should contain at least 50g/L IgG to provide passive immunity alongside adequate fat, protein, vitamins and minerals to support calf health. Recent research at AFBI has shown major variation in the quantity and quality of colostrum produced as a result of differing management practices and animal factors (dam age, breed and parity). Current UK guidelines recommend feeding 2 to 4 L colostrum to the newborn calf within 6 hours of birth due to the rapid decline in IgG concentration relative to the time of collection and storage temperature. Producers often require additional colostrum for newborn calves during the calving period. Whilst colostrum replacer products are available, the utilization of these products by UK or EU producers is somewhat limited as they are not considered to provide the same benefits as natural colostrum. This often results in surplus colostrum being stored frozen for future use by farmers.

This project seeks to investigate both the immune activating properties exhibited by colostrum and how dairy cow management can influence immune and bioactive component levels within colostrum. The overall aim is to establish collection and processing procedures which would provide a rich nutritional colostrum supplement.

### What we are looking for?

AgriSearch (in partnership with AFBI, Queen's University Belfast, Dale Farm and Devenish Nutrition) are seeking to recruit 30 dairy farmers from across Northern Ireland to participate in the study. Farmers will be expected to collect colostrum samples from second and third calving cows within 12 hours post-calving. Details of forage (grass &/or silage etc) and concentrates fed to cows will be recorded and monitored.

**Next Steps**

If you wish to apply, download an application form from the AgriSearch website and return via email to [elizabeth@agrisearch.org](mailto:elizabeth@agrisearch.org) or by post to:

AgriSearch  
Innovation Centre  
Large Park  
Hillsborough  
County Down  
BT26 6DR

**Deadline**

Applications forms must arrive no later than noon on Thursday 31<sup>th</sup> August 2017.

**Further Information**

If you have any specific queries then contact either Elizabeth Earle (AgriSearch) on 028 9268 1514 or Ruth Kinkead (AFBI) on 028 9268 1524

Project supported by:

