

## **The Royal Guernsey Agricultural & Horticultural Society**

### **Report to the 14<sup>th</sup> World Guernsey Conference**

The Royal Guernsey Agricultural & Horticultural Society is pleased to report a very positive three years activity since the 13<sup>th</sup> World Guernsey Conference.

#### **THE ISLAND HERD including Alderney**

There are seventeen herds producing milk for the Guernsey Dairy, one herd that serves Alderney and a number of small herds mainly rearing purebred heifers and beef cross animals.

The 18 dairy herds comprise 1,449 cows of which  
384 are first lactation heifers  
379 are second lactation cows  
258 are third lactation cows  
159 are fourth lactation cows  
269 are cows in their fifth or subsequent lactations

The herds also contain 1,030 heifers in the following categories:

432 > 1 Year  
418 1-2 Years  
180 2 Years+

#### **REGISTRATIONS - 2012**

Registrations recorded in 2012 were:

Pedigree Female 498  
Pedigree Male 23

#### **AVERAGE 305 DAY PRODUCTION 2009**

851 Cows: 6,153 kgs Milk, 315 kgs 5.11% Fat, 217 kgs 3.53% Protein  
332 Heifers: 5,736 kgs Milk, 296 kgs 5.16% Fat, 200 kgs 3.48% Protein

#### **We are proud to report that Alderney now has the Leading Production for the UK and Guernsey Island**

Mike Cox of Kiln Farm, Alderney has developed a really outstanding herd in terms of both production and conformation.

16 Cows averaged: 7,858 kgs Milk, 416 kgs 5.30% Fat, 278 kgs 3.55% Protein  
9 Heifers averaged: 6,944 kgs Milk, 364 kgs 5.24% Fat, 242 kgs 3.50% Protein

#### **The herd also produced the Leading Production Animal for the UK and Guernsey Island**

Alderney Cavalier Bowe:

6th Lactation: 11,437 kgs Milk, 591 kgs 5.17% Fat, 382 kgs 3.34% Protein

#### **We are equally proud to report that the Island boasts the Leading Genetic Herd for the UK and Guernsey Island**

Les Jaonnets Herd owned by Mike Bray is another herd of outstanding performance and conformation

75 Cows PLI £65

7,663 kgs Milk 414 kgs 5.46% Fat 268 kgs 3.51% Protein

30 Heifers PLI £81

7,231 kgs Milk 394 kgs 5.46% Fat 253 kgs 3.51% Protein

We are delighted that Les Joannets Caras Conqueror has become the first Island bull to have daughters in North America.

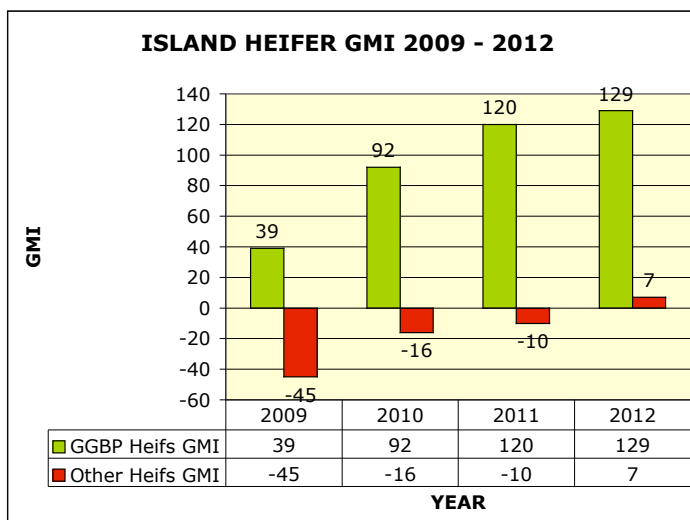
### The Guernsey Global Breeding Programme

RGA&HS is fully committed to the programme. 62% of registrations are now sired by GGBP Bulls

Improvement has been in line with the predicted effect of use of the Guernsey Merit Index. There has been a steady improvement in all selected traits (Milk, Fat, Protein, Feet and Legs, Mammary System and Somatic Cell Count.)

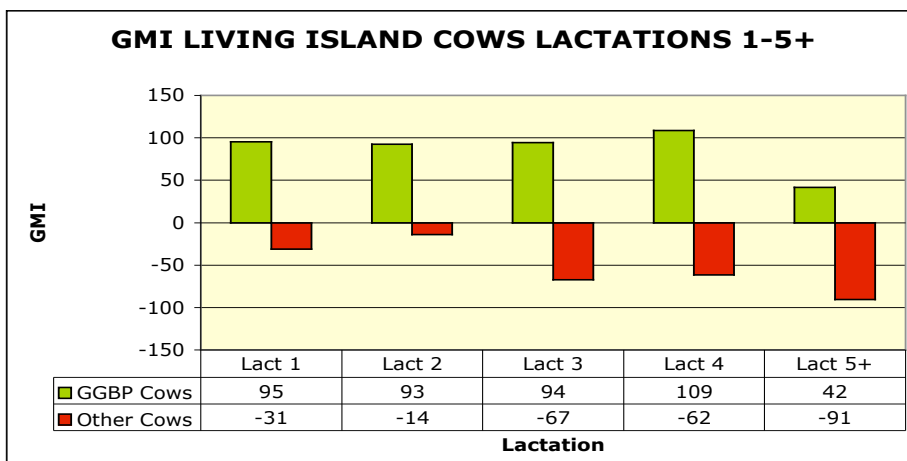
Heifers sired by GGBP Bulls have Estimated Transmitting Abilities far in excess of those sired by Proven and Farm Bulls (Figure 1)

Figure 1



Cows sired by GGBP Bulls have outperformed those by other bulls (Figure 2)

Figure 2



## What our breeders expect of GGBP in the future

1. Improved Female Fertility
2. Diversity of pedigree
3. Healthy cows of moderate stature
4. Further improvement in functional type
5. Cows that are easy to manage

## What we are doing about this

### 1. FEMALE FERTILITY has been added to the original Guernsey Merit Index

Regular calving patterns are economically essential here in Guernsey if we are to secure a year round supply of liquid milk to our Dairy. While management plays an important part in herd production and health, as a breed society it is our duty to ensure that our cows remain genetically healthy.

Research carried out by Prof. Jan Philipsson and Dr. Janet Roden recommended a weighting of 25 for Female Fertility would prevent any further genetic decline in this trait.

We are now using GMI + Fertility (GMIF) as our main selection Index.

$GMIF = PTA\ Milk \times -0.4 + PTA\ Fat \times 9 + PTA\ Prot \times 20 + PTA\ Legs\ \&\ Feet \times 10.9 + PTA\ Mammary \times 24.3 + (PTA\ SCC \times -0.65 + Female\ Fertility \times 25)$

### 2. DIVERSITY OF PEDIGREE

Although the inbreeding coefficient of Island cattle is low, (The average in 2011 was 4.2% compared with 7.3% in USA ) it has more than doubled in the last 10 years and is now increasing at a rate of more than 1% per generation. This has prompted us to move to an Optimum Contribution Model for our Planned Mating Programme. We are using EVA software to deliver matings of the highest genetic merit in GMIF for the lowest inbreeding coefficient.

We currently have 40 planned matings proposed by EVA all from high indexed cows that have scored >85 points Final Score.

As can be seen from Figure 3, it is possible to simultaneously achieve high rates in PLI, GMI and GMIF.

**Figure 3**

<b>WE CURRENTLY HAVE 40 PLANNED MATINGS PROPOSED BY EVA. ALL DAMS HAVE SCORED A MINIMUM OF VG 85</b>		
<b>AVERAGE ETA</b>		
<b>Milk +320kgs</b>		<b>Dairy Strength +0.7</b>
<b>Fat +17.5kgs +0.04%</b>		<b>Locomotion +0.7</b>
<b>Prot +10.1kgs -0.02%</b>		<b>Feet &amp; Legs +0.7</b>
<b>PLI +£106</b>		<b>Mammary +1.2</b>
<b>SCC -2</b>		<b>Fertility Index -0.5</b>
<b>PLI +£106</b>	<b>GMI +269</b>	<b>GMIF +256</b>

We are confident that use of GMIF and EVA will result in a sustainable future for Island Guernseys.

We also believe that continued emphasis on health traits such as female fertility and somatic cell Count coupled with our breeders' desire to maintain Dairy Strength and avoid extreme stature will result in healthy cows that have shorter calving intervals and are easy to manage.

### **The Future of GGBP**

We will continue to work closely with EGCS Future of the Breed Committee.

Unfortunately recent changes in UK regulation are making it impossible for us to export semen to UK, Europe and USA. We are attempting to resolve this issue but it seems that a solution may be elusive.

We will continue to seek bulls of unrelated pedigree from other populations where breeding values are available for conversion to ensure that they meet our selection criteria.

We hope that genomic assisted evaluation will improve the reliability of our GGBP candidate young sires.

We will continue our commitment to excellence in all the activities of our society

### **Farm Business Diversification**

Two farms have diversified their farming activities to take advantage of a market for 'Local Produce'. Both farms also open their doors to the public and invite school parties and local organizations to visit their farms and learn about the Guernsey farming industry.

### **The Watts Family Butchery at Meadow Court Farm**

This award winning butchery markets Pure and Crossbred Guernsey Beef  
The butchery also sells local and imported Guernsey cheeses, farm butter, pork and bacon and Sark lamb.

### **Le Hechet Farm**

Guernsey Farmhouse Ice Cream is a family business selling 50 flavours of delicious Guernsey ice cream through a specialist supermarket, in restaurants, at agricultural shows and local events and at the farm. "When you've tasted this you'll never want any other ice cream!"

The Royal Guernsey Agricultural & Horticultural Society is committed to:

- The Guernsey breed
- GGBP
- Care of the environment
- Diversification
- Excellence in all we do.