

From: **DAD-Net** <DAD-Net@fao.org>
Date: 2012-12-19 16:01 GMT+01:00
Subject: DAD-Net: Ayrshire in danger? - further comments
To: DAD-Net-L@listserv.fao.org

From: Laurent AVON [mailto:laurent.avon@orange.fr]

Dear Lawrence

I entirely agree with your analysis and comments. Please, let me add some thoughts and facts in respect to the conservation of cattle breeds in developed countries. There are a lot of meetings, scientific points of view, publication, methods for minimize inbreeding, genetic distances studies etc, etc. The reality is that scientific recommendations are disconnected with the reality. The reality is in the hands of AI Centres and Breed Societies whose the policy is not necessary breed conservation but corporate interests. If we want effective conservation it needs to invite AI Industry around the table and clarify the role of breed societies. We must find money, specially state money as the breeds are public heritage. AI is a good tool and must not be reserved to national cryobanks which become very quickly technocratic machinery. The situation is specially very critical for traditional dairy taurine breeds :

1/ UK

- Dairy Shorthorn : critical (150 purebred cows left, no AI bulls for routine AI)
- Ayrshire : will be in danger
- Red Poll : dairy strains in danger
- Northern Dairy Shorthorn (critical, 30 cows left)
- Lincoln Red : no more dairy strains ; Angus and Limousin introgression ; no more horned strains
- Guernsey : no more British strains

2/ FRANCE

- Flamande : no more purebred females (but still purebred semen)
- Salers : dairy strains in danger

- Maine Anjou : dairy strains are lost (but still some semen)

3/ BELGIUM

- Rood (West Flemish) : critical (some semen in France)
- Witrood (East Flemish) : in danger

In the case of Belgium the VRV (Flanders AI Centre) has been bought by VRV (Delta)). The Dutch (VRV) do not want to help and to keep these two tremendous breed.

4/ DENMARK

- Red Danish (Old Red Danish or RDM 1970) : critical as a dairy breed (less than 200 purebred cows left)

5/ GERMANY

- Angler : no more purebred animals
- Murnau Werdenfels : critical as a dairy breed , some French Tarentaise breed introgressions
- Vorderwalder : Holstein, Ayrshire and Montbéliarde introgressions

6/ LATVIA

- Latvian blue : critical as a purebred breed

7/ ESTONIA

- Estonian Native : introgressed with Jersey and West Finnish

8/ ITALY

- Pustertaler Sprinzen : some French Vosgienne introgression

Dairy Shorthorn, Flamande, Red Danish were the improved specialized dairy breeds of the beginning of the Twentieth century. There are emblematic.

Three native dairy taurine breeds were maintained still today outside Europe :

- Canadienne (Canada) : 150 purebred cows left.
- Mauritius White (Mauritius) : 40 cows left

- Illawarra (Australia) : critical as a purebred

See images at:

ftp://DADnet:Mobile45@ext-ftp.fao.org/ag/reserved/dad-net/RaceWitrood_ou_PieRougedesFlandresOrientales_Belgique_LAvon.jpg (950 kb)

ftp://DADnet:Mobile45@ext-ftp.fao.org/ag/reserved/dad-net/RaceWitrood_ou_PieRougedesFlandresOrientales_Belgique_LAvon_2009.jpg (1Mb)

I do not want to speak of the breed still extinct.

Regards.

Laurent AVON

21 place Balechou

F-13200 Arles

Tél : (0033)(0)6 86 58 03 27 (portable)

Tél : (0033)(0)4 90 96 69 21 (fixe)

laurent.avon@orange.fr

De : Lawrence Alderson [mailto:Lawrence@clltd.demon.co.uk]

Envoyé : samedi 22 septembre 2012 16:44

À : Laurent AVON; 'tony howe'; 'runboard.com'; 'Tom Ripley'

Cc : 'Scherf, Beate (AGAG)'; 'Boettcher, Paul (AGAG)'; Mario DUCHESNE

Objet : Re: Ayrshire in danger ?

Dear All

The central theme of Laurent's message (and some previous messages) - the damage of erosion of historic breeds by ongoing introgression - is one to which we all can subscribe, but it is appropriate to consider the problem in the context of wider associated issues.

Genetic erosion is a global problem. Genetic drift leads to erosion but it is a natural (inevitable) effect and should not concern us if it is gradual. However, in recent decades change has been accelerating. In developed countries it usually takes the form of insidious introgression - Red Holstein in the Ayshire, Limousin in Bordelaise and Sussex, Guernsey in Froment du Leon, Duroc in Iberian, etc. In some cases the change is encouraged to extremes by irresponsible policies of breed organisations which may go beyond irresponsible neglect and become a deliberate policy of exclusion of purebred animals. RBI initiated a global survey of the status of Dairy Shorthorn cattle because of the policy of Coates Herd Book in UK.

In developing countries the situation may vary and breed substitution is more common. In these countries there may be a more compelling incentive of economic necessity. The New York Times discussing Holsteinisation three or four years ago summarised it neatly: "Indigenous animals like East Africa's sinewy Ankole, the product of centuries of selection for traits adapted to harsh conditions, are struggling to compete with foreign imports bred for maximal production. This worries some scientists. The world's food supply is increasingly dependent on a small and narrowing list of highly engineered breeds: the Holstein, the Large White pig and the Rhode Island Red and Leghorn chickens. There's a risk that future diseases could ravage these homogeneous animal populations. Poor countries, which possess much of the world's vanishing biodiversity, may also be discarding breeds that possess undiscovered genetic advantages. But farmers like Mugira say they can't afford to wait for science. And so, on the African savanna, a competition for survival is underway."

The concern in both cases is that changes are short-term expedients. In the developed world we will need breeds of cattle and sheep able to utilise uncultivateable land (as arable land is devoted increasingly to the production of crops for direct human use) and high-energy breeds will decline in importance. In the developing world the short-term effect of breed substitution may be recognised more quickly, but in both cases the native breeds with local adaptation may have been lost before the danger is realised and addressed. The Dairy Shorthorn and Ankole are (or soon will be) relics.

The loss of local breeds is the outcome of current expediency, and is a concern we share. The need to conserve genetics of these breeds is demonstrated by Ossabaw pigs (USA) and Auckland Island pigs (NZ), both of which were being culled to extinction but were saved by conservation NGO action and now the former is an animal model for human non-insulin dependant diabetes, and the latter has a unique role in the field of human transplants. In the UK the endangered North Ronaldsay sheep are used as animal models for human copper toxicosis.

International organisations (FAO, RBI) are making efforts to deal with the problems and are seeking out local populations, but the endeavours of local breed champions often have to surmount unnecessary political and scientific obstacles - e.g. Sosamma lype with Vechur cattle in India. They deserve more active support.

New breeds and extinct breeds complicate the picture still further. New breeds are developed to meet requirements in the market place - Laurent cites the Viking Red. This is a legitimate development if a genuine need exists, but the original breeds and their individual adaptation must not be lost. On the other hand, extinct breeds cannot be re-created. A 're-creation' is a new breed. Blue Albion cattle and Oxford Sandy & Black pigs both became extinct in the UK in the late 1960s. Both have been re-created under the same name (which is misleading) and the genetics are not the same.

These are some of the wider associated issues which need to be considered. The urgency increases as losses continue and genetic erosion intensifies. I'm sure that FAO (in the last 60 years) and RBI and its affiliated NGOs (in the last 40 years) have had a positive impact, but we are swimming against the current. I would be happy to convene a seminar to deal with the issues and problems (maybe on a similar basis to the London Seminar 2010) if funding could be found. Is there opportunity to discuss the possibility next month when we are at the ITWG-AnGR7 meeting?

Best wishes

Lawrence

----- Original Message -----

From: [Laurent AVON](#)

To: ['LawrenceAlderson'](#) ; ['tony howe'](#) ; ['runboard.com'](#) ; ['Tom Ripley'](#)

Cc: ['Scherf, Beate \(AGAG\)'](#) ; ['Boettcher, Paul \(AGAG\)'](#) ; [Mario DUCHESNE](#)

Sent: Saturday, September 22, 2012 11:19 AM

Subject: Ayrshire in danger ?

Dear all

Since 2010 Finnish Ayrshire is part or incorporate into of a new "breed/population" called "Viking Red" including Finnish Ayrshire, the new RDM (blended) and SRB. Finnish Ayrshire consisted in 140 000 pure Ayrshire cows and the largest Ayrshire population in the world. It is foreseeable that NRF (from Norway), Illawarra and Aussie Red will be incorporated too. The "new" Dairy Shorthorn (blended) is part of this group but the roan pattern still differentiate it. Only

breed societies and some AI corporate still give the change. Names differs but the genetic is the same.

Pure Ayrshire are still found in UK, USA and Canada but these countries already admit some bulls with Red Holstein blood. It is time to save semen and have an eye on the evolution of the situation. 2012 Ayrshire are tallest than the 1975 Ayrshire to be in phase with Red Holstein but it is not enough to secure the breed. Particularly interesting and useful are the pure bull strains (and semen) of the seventies and eighties, the time the Ayrshire was still 135 cm high. It was a very useful breed for sustainable breeding. Old semen must be preserved from today and a census be taken.

Ayrshire lost a part of its identity when dehorning too.

In fact it exists only four tall and large specialized dairy breeds now competing for leadership in the world : Holstein, Viking Red, Brown Swiss and Montbéliarde (one day the Reggiana will be a challenger). On the dairy dual-purpose breeds side two are still active : Normande and Simmental-Fleckvieh. On the side of small specialized dairy breed : only the Jersey (may be one day the purebred Canadienne breed will be a challenger).

Traditional or heritage dairy breeds are in great danger. Nevertheless taurine breed diversity lie on these old dairy breeds. Some have already disappeared, other have lost milk production and are suckler breeds now, some are still alive and must be protected: it is the case of the Original Dairy Shorthorn (100% pure). The challenge is to permit to these old dairy breeds to keep their milk potential without being too inbred. We must think of programmes permitting at least to a breed of 200 cows to be in good health and still useful and operational for future generations.

Regards.

Laurent AVON

21 place Balechou

F-13200 Arles

Tél : (0033)(0)6 86 58 03 27 (portable)

Tél : (0033)(0)4 90 96 69 21 (fixe)

laurent.avon@orange.fr