



WATER BUFFALO NEWSLETTER

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THE AMERICAN WATER BUFFALO ASSOCIATION

IBF TRAINING PROGRAM

In Italy June 16-27, 2014

A comprehensive training course for water buffalo breeders, technicians, dairy operators, and meat producers will be held near Rome, Italy on June 16-27, 2014.

The two-week training program is being organized by the International Buffalo Federation (IBF). The course will cover key aspects of modern buffalo industry management such as nutrition requirements, reproduction technologies, sanitary controls, and milking and meat processing techniques, and will address each level of animal production including calves, heifers, dry buffaloes, milking buffaloes, young bulls, and breeding bulls.

The conference will be held at the Istituto di Istruzione Superiore in Borgo Piave, Latina, Italy. Instruction will also be provided at nearby locations including laboratories, buffalo farms, cheese plants, and meat plants. The Italian Council of Research in Agriculture and Istituto Zooprofilattico Sperimentale, the country's national public veterinary institute, are helping organize the curriculum. Prof. Antonio Borghese, General Secretary of the IBF and chief organizer for the conference, announced the cost for two-week training program, including all course work and room and board, is expected to be about Euro €750 or US \$1,000 per student.

The International Buffalo Federation, headquartered in

Monterotondo, Rome, Italy, organizes meetings and publishes materials to promote water buffalo industries worldwide. The organization most recently helped sponsor the 10th World Buffalo Congress in Phuket, Thailand in May, 2013.

Additional information about the conference is available in the Dec. 2013 edition of the IBF Buffalo Newsletter, or by contacting either Prof. Borghese (antonio.borghese@email.it) or your nation's IBF representative.

What

Training course on water buffalo management and industry

Who

Sponsored by the International Buffalo Federation

Where

Istituto di Istruzione Superiore, Borgo Piave, Latina, Italy

When

June 16-27, 2014

Cost

US \$1,000 est. (room & board included)

Purpose

Comprehensive training for managing buffaloes and buffalo food products

BUFFALO SYMPOSIUM IN COSTA RICA

Registration Now Open

The **7th Buffalo Symposium of Europe and The Americas** will be conducted this year at the Wyndham Hotel & Convention Center in San Jose, Costa Rica on May 5-6, 2014. The program will include technical seminars, an industry exhibition, field tours, and pre-conference courses. The conference is jointly sponsored by the Costa Rican Association of Buffalo Breeders, the American Buffalo Breeders Federation, the International Buffalo Federation, and other parties.

The conference agenda will include presentations covering the following general areas: 1) Marketing and Sales of Dairy and Meat Products; 2) Health and Reproduction Topics; 3) Entrepreneurship Management and Environmental Sustainability; 4) International Legislative Matters. A closing group dinner will be hosted

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International Report

RESTORING BUFFALO POPULATIONS IN IRAQ

Was the biblical Garden of Eden located in the once lush Mesopotamian Marshlands of Southern Iraq? That's a matter for historians and mythologists to debate. Even so, today efforts are underway to restore the grand aquatic landscape of this area. Over the years, most of the marshlands disappeared, first because dams were built blocking the flow of water to the area, and then because of a massive drainage project executed during the presidency of Saddam Hussein. Restoring the eco-system, located between the Euphrates and Tigris rivers, is a vast undertaking because the region comprises more than 6,000 square miles, an area larger than the Florida Everglades.

The rebuilding of Iraq's marshes is also helping to restore interest in the nation's population of water buffaloes. Wetlands provide a favorable environment for buffalo production, and breeders are returning to areas that have been re-flooded. Today there are perhaps 100,000 water buffaloes in Iraq. The majority of animals are River type Khuzestani or Iraqi

breeds. The region has supported much higher buffalo populations in the past.

Scientific and technical advances related to water buffaloes are increasing in Iraq as well. A number of important papers from researchers in Iraq have been published in international journals recently. Some of these articles, listed below, are available for members to view on the American Water Buffalo Association web site. In addition, a book concerning early pregnancy detection in buffaloes was recently published by Talal Abdulkareem, Assistant Professor of Animal Sciences at Baghdad University. (*Early Pregnancy Detection of Iraqi Buffalo Using PSPB and Progesterone*, Lambert Academy Publishing, 2012, ISBN 3659189103).

Additional steps are underway in Iraq to construct dairy facilities, feed plants, and veterinary centers. A cooperative, multi-disciplinary approach, combined with restoration of the wondrous Mesopotamian Marshlands, are continuing to help rebuild water buffalo populations in Iraq.



An Iraq Kuhzestani buffalo,
Antonio Borghese, 2013

Some Recent Scientific Papers from Iraq

Reproductive and Productive Performance of Iraqi Buffaloes as Influenced by Pre-Mating and Pre-Calving Concentrate Supplementation
TA Abdulkareem, SM Eidan, et. al.
Pakistan Veterinary Journal
Vol. 32 (3), 2012

Some Hematological and Blood Biochemical Profile of Iraqi Riverine Buffaloes During Different Gestation Periods
Talal A. Abdulkareem
Journal of Buffalo Science
Vol. 2, No. 2, 2013

Some Hematological and Blood Biochemical Attributes of Iraqi Riverine Buffaloes Around Calving and Postpartum Periods
T. A. Abdulkareem
Journal of Veterinary Science
Vol. 6, No. 1, 2013

For Further Reading

Eden Again: Hope in the Marshes of Iraq
Suzanne Alwash
Tablet House Publishing, 2013

SCIENTIFIC JOURNALS FOR WATER BUFFALO INTERESTS

Many sources publish up-to-date technical information related to water buffalo livestock and products. Here is a list of 10 scientific and agricultural journals that regularly publish water buffalo research results. Some journals are available on line for free; others may require an annual subscription.

1. Buffalo Bulletin

International Buffalo Information Centre
ISSN 0125-6726
<http://ibic.lib.ku.ac.th/e-bulletin/>

2. Indian Buffalo Journal

Indian Society for Buffalo Development
ISSN 0019-5022
www.indianbuffalojournal.com/

3. Italian Journal of Animal Science

Animal Science and Production Association
ISSN 1828-051X
www.aspajournal.it

4. Journal of Buffalo Science

ISSN 1927-5196
www.lifescienceglobal.com/journals/journal-of-buffalo-science

5. Asian Buffalo Magazine

Asian Buffalo Association
www.asianbuffaloassociation.org/publications.html

6. Journal of Dairy Science

American Dairy Science Association
ISSN 0022-0302
www.journalofdairyscience.org

7. Meat Science

American Meat Science Association
ISSN 0309-1740
www.journals.elsevier.com/meat-science/

8. Asian-Australasian Journal of Animal Sciences

Asian-Australasian Assoc. of Animal Production Societies
ISSN 1011-2367
www.ajas.info/

9. Animal Science Journal

ISSN 1740-0929
<http://onlinelibrary.wiley.com/journal>
al

10. Animal Reproduction Science

ISSN 0378-4320
www.animalreproductionscience.com/

Commentary from the Editor Publishing for Science

A large number of scientific and agricultural journals publish technical papers related to water buffalo livestock and products. The advent of on-line publishing makes it easier for new journals to be created to compete with established titles. One of these new publications is **Journal of Buffalo Science**, which appeared in 2012 and has produced three editions to date. The journal was created by Dr. Saber Mohamed Abd-Allah,

Journal of Buffalo Science



based at Beni-Suef University in Beni-Suef, Egypt. Dr. Saber Abd-Allah is the founder of four international journals and is the editor-in-chief of several

others. The journal is available for viewing at the following web site: www.lifescienceglobal.com/journals/journal-of-buffalo-science

Newer "open access" and "e-journals" are sometimes criticized because a certain number of them require authors, or their supporters, to pay a fee to have their work published, and some of them don't follow a formal peer-review process before making research results public. Do new journal additions diminish the overall quality of scientific publishing, or do they improve research efforts by providing new, lower cost pathways to information for everyone? The only way to decide is for readers to review the contents and consider for themselves whether a journal strengthens or detracts from the body of science they are interested in.

... Conf. in Costa Rica continued

on the second night of the conference. Also, a pre-conference tourist tour will be available for those interested on Sunday, May 4th.

The previous event, the 6th Buffalo Symposium for Europe and The Americas, was held in Havana, Cuba in 2011. There were 168 participants there from Argentina, Brazil, Columbia, Costa Rica, Cuba, Italy, Panama, Venezuela, and Trinidad and Tobago.

Registration for the conference is now open. For more information, visit the web site at www.bufaloscostarica2014.com, or contact the official event organizer MICE Centroamérica in San Jose, Costa Rica at telephone (506) 7014 3690.

WATER BUFFALO GENOME DECODED

Two private research organizations, working in a joint venture, have decoded the complete genome of the water buffalo.

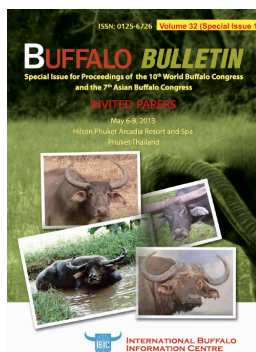
Lal Teer Livestock, Ltd., based in Bangladesh, and the Beijing Genomics Institute of China made the announcement earlier this year. They stated the draft buffalo genome consisting of 21,550 genes is entirely identified, and work is proceeding to complete the final genetic sequencing for the species.

DNA samples from the Riverine type buffalo were used for the project. Water buffalo populations in Bangladesh have been neglected in recent years, and it is hoped this work will revitalize interest in the species. Genome sequencing allows scientists to selectively manage different features such as growth, heartiness, milk production, or meat development. The development of better breeds of buffaloes through genetic selection can help attract new entrepreneurs into livestock operations and encourage investments in buffalo dairy and meat industries.

BGI is one of the leading genetic research groups in the world. The two organizations began their collaboration in March 2012. The decoding work was completed in a surprisingly short period of time.

WBC PROCEEDINGS ONLINE

The 10th World Buffalo Congress, in conjunction with the 7th Asian Buffalo Congress, was held in Phuket, Thailand last year. More than 350 attendees who came to the event gained a wealth of information about research and developments in the industry. The International Buffalo Information Center at Kasetsart University, Thailand, has published the proceedings of the conference and made them available on line. A special edition of the center's quarterly publication *Buffalo Bulletin* (Vol. 32, 2013, SI-1) contains lectures and presentations from more than 30 experts on topics ranging from biotechnology, reproduction and breeding to livestock management, meat production, and dairy products. The information is available at the IBIC publications web site at <http://ibic.lib.ku.ac.th/e-bulletin>. Those who were unable to attend the conference in person now have an online source for viewing many of the lectures and technical papers presented at the congress.



Buffalo Bulletin published the proceedings of the 10th World Buffalo Congress in a special edition available in print and online.

WATER BUFFALO Q&A

Questions submitted by members and answered in previous editions are periodically reprinted here for the benefit of new readers.

Question:

"Is it dangerous for new calves to be around water just after than are born? Should buffalo mothers with newborn calves be isolated from swamps and rivers?"

Answer from Dr. Popenoe:

The danger for newborn calves to drown in water is very small. However, sometimes young animals can become stuck in deep mud, so if footing is extremely soft around a water source then calves should be kept away for at least two weeks until they become stronger.

Question:

"Do water buffaloes require any type of special care for their hooves? Sometimes the back of their hooves become rather long, and I was wondering if they ever need to be trimmed."

Answer from Dr. Popenoe:

Occasionally water buffaloes will get elongated hooves if they do not walk enough on hard ground. Rarely a buffalo may have a genetic predisposition to growing long hooves. In these cases their hooves can be trimmed in the same manner as with horses or cattle. A farrier who trims horses hooves can do this job. My experience has been after trimming the elongation does not return.

Dr. Hugh Popenoe, a founder and past president of the American Water Buffalo Association, passed away in 2011.

For the Table WATER BUFFALO CORNING

This recipe was provided by association member Betty Haeseker.

Because so many of you have asked for the corning recipe, it is re-printed in this edition of the newsletter. Corning is a method that can be used with any cut of water buffalo. Although most of us think of corned "buff" by using a brisket, I find that roasts slice best for sandwiches or a platter of cold cuts. Be sure to slice across the grain when the meat is cold.

Combine and stir well in a non-metal bowl large enough to hold ingredients and the meat.

8 cups water
3 tablespoons sugar
6 peppercorns
2 teaspoons pickling spices
1 cup pickling salt
1 bay leaf
1 clove of garlic, minced
1/4 teaspoon saltpeter (potassium nitrate) dissolved in 1/2 cup of water

This solution is adequate for 5 or 6 pounds of raw buffalo meat. Cover with a plate, put a heavy object on the plate, and let this solution do its magic for four weeks in your refrigerator. Check it every once in a while and add water if necessary. If the meat isn't completely submerged, some fuzzy stuff may form on it. Brush it off, add water and keep corning.

I strongly suggest you halve the amount of salt. Try it both ways to determine your taste preference. If you like garlic, then double the amount in the recipe. The saltpeter keeps the meat red. It will be a gray color without it, but will taste the same.

After four weeks, rinse the meat several times before cooking. After rinsing, the meat can be frozen and cooked at a later date.

ASIAN CONGRESS IN 2015

The **8th Asian Buffalo Congress** organized by the Asian Buffalo Association will be held next year on the grounds of the Harbiye Military Museum in Istanbul, Turkey during April 21-25, 2015. The conference will address key issues related to water buffalo research, science, and production of interest to international policymakers, livestock producers, and consumer organizations. A pre-congress workshop concerning reproductive biotechnology in buffalo will be conducted in the days leading up to the conference. More information is available at the web site www.abc2015.org.

The official language of the Asian Buffalo Congress is English.



Officials from La Teer Livestock, Ltd. and BGI unveiled their draft water buffalo genome decoding work in Dhaka, Bangladesh on Jan. 24, 2014 (photo from banglanews24.com).

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Published by the **American Water Buffalo Association**, 2415 N. Mosley Rd., Texarkana, AR 71854. The American Water Buffalo Association, est. 1986, promotes the scientific study of raising, breeding and marketing water buffalo. The association also serves to bring a focus on the potential of the animal in the United States, and to bring together those who are interested in the growth and development of the breed.