

Letter from the Executive Director, Agribusinesses

New era of vaccination in poultry industry:

The major goals of poultry vaccines are to improve the health and welfare of companion birds, increase production of livestock in a cost-effective manner, prevent bird-to-human transmission and increase food conversion ratio. These diverse aims have led to different approaches to the development of poultry vaccines from crude but effective whole-pathogen preparations to molecularly defined subunit vaccines, genetically engineered organisms or chimeras, vectored antigen formulations, and naked DNA injections. Ceva Sante Animale our partner in poultry vaccine has invested massively in vaccine research & development, the output of which will be available very soon.

Conventionally for the Newcastle disease of poultry birds we use 5 different vaccines on 5 different growing stages of birds in the farms. Since these vaccines are given in the farming stage and due to less knowledge of our growers, these vaccines lose some efficacy as well as it hampers the production. Vectormune ND is the new technology developed by Ceva which will shift vaccination of poultry birds from farming stage to hatchery stage. The positive outcome of using Vectormune ND in hatchery stage is the growers won't need to face the challenges of vaccination over 5 different times in their farms. Secondly this technology will improve the efficacy of growing birds which will ultimately increase the production

and immunity against Newcastle disease. Duration of immunity is the most impressive feature of this vaccine. Following a single injection of Vectormune ND on day of hatch layers are totally protected against clinical signs, mortality and drop in egg production until at least 72 weeks of age. Vectormune ND has the potential to change the approach of Newcastle disease prevention in the field and soon be considered as a strong tool toward the long term control of this important poultry disease. ACI Animal Health is determined to keep pace with new technology and introduce them in Bangladesh continuously to improve high productivity in the farm.



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Purple and yellow fleshed potato clone obtained with high nutrition and disease-immunity

The Basque Institute for Agricultural Research and Development, Neikar-Tecnalia, has created four new potato clones which are characterized by their high antioxidant content, their good production both in size and number of tubers, as well as by their resistance to usual diseases of the crop. The clones were obtained by natural methods through crossing varieties from South America with commercial varieties used in Europe. The result was three clones of purple fleshed potato and one with yellow flesh.

The clones obtained have been characterized by high presence of antioxidant compound which makes them very attractive from nutritional perspective. A large quantity of anthocyanins is found in the three purple-flesh clones, which is a highly appreciated pigment in the preparation of high added value foods. Again, the yellow fleshed potatoes contained carotenes which are essential components for diet and it remains in greater quantity than in usual commercial varieties.



Synthetic vaccine may help tackle foot-and-mouth disease

Scientists have developed a synthetic vaccine that could be modified to tackle problematic forms of foot and mouth disease (FMD) in the developing world. FMD is highly contagious viral disease afflicting livestock that is endemic in many parts of Africa, Middle East and Asia. The current vaccine is made in costly bio secure plants and need to be kept refrigerated.

Now, for the first time in United Kingdom, the researchers have created a safe, synthetic vaccine that works as well as the current vaccine and eliminates the risk of live virus outbreak. "The benefits of this new vaccine are that no virus is involved, making it less expensive to produce, much safer and the vaccine is so stable that it is less dependent on a cold chain." says Bryan Charleston, head of Livestock Viral Diseases Program at The Pirbright Institute and one of the study's lead researchers.

Livio Heath, manager of the Transboundary Animal Disease Program at the Agricultural Research Council-Onderstepoort Veterinary Institute, South Africa, says: "Application of the new vaccine in global efforts to control FMD is still some way off. However, the advantages over the current vaccine make it an attractive alternative in the fight against the disease."



Bangladesh: short duration rice allows for sunflower crops afterwards

Use of short-duration rice varieties allows farmers to concentrate on sunflower cultivation. Farmers shared how they used to cultivate local varieties (e.g. Sada Mota, Lal Mota, BR22 and BR23) in the Aman (July- November) season. All of these are long duration varieties and harvest can carry on up to end of December after which crops such as wheat, mustard, maize and sunflower can no longer be grown.

Earlier, upon advice from Cereal Systems Initiative for South Asia, 5 farmers took the initiative to grow short duration T. Aman rice. By November, the farmers were done with harvest and were then able to plant sunflower in the very land they cultivated T. Aman. Sunflower oil is an important household commodity and is also a source of extra income for farmers.



Controlled release of N-Fertilizer can squeeze cost

It is widely known that nitrogen fertilizer applied as anhydrous ammonia, UAN solutions or urea can be lost in wet weather and under other adverse conditions. "Controlled release nitrogen fertilizer can reduce these losses by delaying the initial release of N and providing it gradually to better match its availability with crop uptake needs," according to a duPont Pioneer report. The report further noted that controlled release, also called slow release or delayed release, N fertilizer include coated ureas, uncoated chemical release forms and other products. The higher cost of controlled released products generally excludes their use in cases where conventional nitrogen fertilizers can perform the same function adequately. "Such fertilizer products can be used in high value crops,

in environmentally sensitive areas, on fields that are highly susceptible to N losses, in fields with limited chances for repeat application and with foliar applications." the report says.



Field days on hybrid maize & retailer meeting on hybrid rice

ACI seed has successfully arranged a few field day programs on hybrid maize Profit and 3110 in April 2013 at one of the Maize prone areas, Meherpur. The variety Profit showed uniform growth, excellent cob positioning, kernel colour, thin shank and cob covered by husk. Moreover, the end users were highly satisfied to see the field performance of this variety and they are showing their eagerness to cultivate it in the coming season. 3110 was also found to be good in cob size, shape and yield potentiality in this area. We are expecting that these two varieties will ensure expected volume of sales in the coming season.

ACI Seed has also successfully arranged two retailer meetings at Magura and Meherpur on 18 and 20 April 2013 for strengthening company sales regarding ACI marketed seed varieties. Discussions about the performance of our different hybrid vegetables and cereal crops took place while feedback of our varieties was collected. They were highly satisfied by observing the performance of our marketed variety in their area and sincerely requested us to maintain this quality for establishing ACI Seed Brand.



New product launch & promotion

ACI Fertilizer launched a new technology product under the brand name “**Bumper Fishcal**” which contains Calcium: 21.5%, Sulphur: 16% & Magnesium Sulphate: 5%. The nutrients are extremely important for fish & shrimp cultivation. The key benefit of the product is to improve the water quality through keeping the pH at optimum level (7.0-8.5) during daytime or night, sustaining the alkalinity at an appropriate level, controlling the toxic constituents (ammonia, nitrite, sulfite, heavy metals), decreasing water turbidity; producing necessary phytoplankton; increasing fish bone hardness; balancing minerals (Ca²⁺ & Mg²⁺) for fish & shrimp physiology (Osmosis regulation); promoting normal photosynthesis in the ponds, promoting natural decomposition of organic waste at pond bottom and promoting fish, shrimp growth and livability. Training programs were organized in Khulna, Satkhira, Bagerhat, Bogra, Sirajgonj & Mymensingh. The response of the participants was very positive.

ACI Fertilizer is trying to promote Organic Fertilizer in tea gardens aggressively. In April 2013, a seminar in Chittagong was held where 25 tea garden managers actively participated in the

program. Business Manager, Zonal Sales Manager, Area Manager & Marketing Officer were present in the program. The tea garden managers showed a positive response for taking **Organic Fertilizer** in the coming season. One bag of organic fertilizer has been given to every garden as a sample for seeing the efficacy of the product. More than 20 gardens in Sreemongal & Sylhet were approached and most agreed to use the fertilizer. ACI Fertilizer is conducting a result demonstration of Organic Fertilizer, Gypsar, Monozinc, Bioferti, Excel Gold & Chelated Zinc in Madabpur Tea Estate of National Tea Company, Srimongal as solution of ACI Fertilizer for increasing tea production.



ACI Cropex supplying vegetable to SHAWPNO

ACI Cropex has developed a strong supply chain for vegetable products which has been started with "SHAWPNO". Last month Cropex supplied eight vegetable items to SHAWPNO consistently and competitive price of 26 days. This month Cropex is going to introduce wholesale point at Kawranbazar for support to sell the farmer products directly. Cropex is also going to launch Cropex Branded vegetable and fruits which will give the comfort to health conscious consumer for health hygiene.




New product from Vietnam for harvesting paddy & wheat

In March 2013, **ACI motors** introduced a new model of **ACI Reaper** (Vikyno Brand, Kubota Technology) from Vietnam to provide reaping solution to farmers which is highly dominated by labor forces. This reaper is powered by HONDA engine to ensure optimum efficiency. This is a low cost high efficiency machine that can harvest 1 acre land in 1 hour where fuel needed is only 1 liter. Now a day's manual harvesting costs nearly Tk. 2400 per acre where as by using this machine farmers can save 87% cost in this segment. Thus farmers can reduce production cost Tk. 2.5 in each Kg of paddy. Compared to manual harvesting system, this machine can save time up to 92% and labor 89% so farmers can save not only capital but also their crops from flush flooding. Utilizing this machine farmer can get return of their investment only in one season.

To promote this product ACI Motors has arranged 30 field demonstration program in different areas of Bogra district; Dinajpur district; Thakurgoan district; Panchagar District; Chapainabangonj district; Tangail Districts; Mymensingh District; Sherour District; Dhaka District and Faridpur district during March. Potential farmers, UAO, SAO, block supervisors, agri-scientists and researchers & print and electronic media were present at these programs. Furthermore paper advertisement given to Daily Prothom Alo to promote ACI Reaper through mass media.



ACI Animal Health launches 5 new products




VPC 50%

Protein Concentrate (Natural)-50%

Complementary Feeds

(An ideal replacer of Animal Proteins like MBM, Fish meal for feed of all animal species)



VPC 60%

Protein Concentrate (Natural)-60%

Complementary Feeds

(An ideal replacer of Animal Proteins like MBM, Fish meal for feed of all animal species at lower cost)

ACI Animal Health launched 5 new products:

VPC 50% & 60% in 25kg Bag

Protein is the main source for both animals & humans. Safe & good quality protein brings maximum output from poultry, dairy & fisheries.

VPC is a Vegetable Protein Concentrate which is sourced from 100% natural microbiological source. The product is a combination of fermentation by products from yeast. Two types have been launched; **VPC 50% & 60%**, where they contain 50% & 60% crude protein respectively.

Fish Pro Gold & Fish Pro Premium

In addition to our existing Fish Pro Super which is Fish Protein meal, we have launched 2 more different types of high quality fish protein meal which will be marketed as **Fish Pro Gold & Fish Pro Premium**. The products will improve the quality of feed. Now customers can choose between 3 types of Fish Protein concentrate from ACI Animal Health.

Tylosin Phosphate 10% Premix

Tylosin is a macrolide antibiotic with a bacteriostatic effect which inhibits the synthesis of the bacterial proteins & work against gram-positive as well as some gram-negative microorganisms such as Streptococcus spp., Staphylococcus spp., Erysipelothrix spp., Corynebacterium spp., Brachyspira, Serpulina (Treponema) hyodysenteriae, Borrelia, Spirochaeta spp., Campylobacter (Vibrio) coli, Pasteurella spp., Brucella spp., Rickettsia spp., Mycoplasma spp. to increase egg production, improved feed efficiency, good quality eggs.

Demonstration and promotion of watermelon: Advanta 1428

In line with marketing goal **ACI Seed** has arranged 20 demonstrations on watermelon: **Advanta 1428** in 10 districts of the country. The variety performed very well in the 'deep green and round' segment of watermelon market. Its flesh is red, very sweet and crisp. The rind ratio is also high leading to higher flesh content. As from demo result of 2013, the variety yielded 1-2 fruits/plant with fruit weight 6.0 kg at Patuakhali and Bhola where 180 farmers observed the product and expressed their intentions to grow the fruit in their own farms.



Training program: rice & vegetable production & technology

A training program on **Rice & Vegetable Production & Technology** under ACI-IFC cooperation program was held during 2-4 April, 2013 at BARI, Gazipur. A total of 30 participants involving sales, marketing and promotional officers of ACI Seed attended the training program. The program was designed to provide instruction on crop production, soils and crop management. Updated crop technology was infused into the program, while technical assistance was provided by BARI. This in-service training will help field forces of ACI Seed to perform seed sales, promotion, crop protection and consulting more efficiently and effectively. The inaugural and closing sessions were attended by Dr. Md. Mokhlesur Rahman, Director (T&C), and Dr. Lutfur Rahman, CSO, BARI, Gazipur. Dr. Md. Shafiqul Aktar, Business Manager, ACI seed along with the product team also observed the training activities. Dr Md. Akter Hossain, PDS Manager acted as coordinator of the event.



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ACI Agribusinesses, the leading agriculture integrator in Bangladesh, is dedicated to gaining prosperity of Bangladesh through food security. ACI Agribusinesses offers complete solutions to farmers and also educates them about the technical know-how.