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Editorial

New information dissemination tools for an ancient activity

E.F. Guèye

Editor-in-Chief

New advanced information dissemination tools using electronic media are being increasingly used by the International Network for Family Poultry Development (INFPD) for disseminating information about family poultry. INFPD has a new website (<http://www.fao.org/ag/againfo/subjects/en/infpd/home.html>). Among the objectives of the INFPD is the encouragement of higher standards through reporting results, providing advice, and disseminating these through its trilingual (English, French and Spanish) newsletter. INFPD newsletter is distributed electronically, with a printed version produced for members without e-mail facilities. As e-mail is a low-cost, fast and reliable way of communication, INFPD members without e-mail facilities are strongly invited to have their own e-mail addresses and to communicate them to us.

Furthermore, the INFPD Directory for FP Development is regularly updated and made available to INFPD members and non-members. This facilitates contacts and collaboration among INFPD members as well as between members and non-members. The current subscriber list reveals that there are presently more than 560 members from 88 countries in five continents. Out of these members 66.8% are from Africa, 16.3% from Europe, 6.4% from Asia, 3.8% from Latin America and the Caribbean, and the remaining 6.7% from North America, the Pacific and the Middle East. We note, with pleasure, increasing memberships from Asia, Latin America and the Caribbean. It can however be assumed that the readership of the newsletter is much larger, as the newsletter is also available on the Internet. The following URLs contain information

located within the INFPD website:

- [INFPD Directory for Family Poultry Development](#)
- [INFPD newsletter](#)
- First INFPD/FAO electronic conference on family poultry [from December 1998 to March 1999 (extended until July 1999)]: [The Scope and Effect of Family Poultry Research and Development](#), and
- Second INFPD/FAO electronic conference on family poultry [from May to July 2002]: [The Bangladesh Model and other Experiences in Family Poultry Development](#).

Furthermore, you are invited to submit case studies of family poultry projects to be posted on the INFPD website (see the call under the section **News**).

In [low-income food-deficit countries](#) (LIFDCs), family poultry (FP) have been kept by local communities for many generations. FP are still very important in LIFDCs. FP is an appropriate system to supply the fast-growing human population with high quality protein. It has been estimated that more than 80% of the poultry population is found in traditional family-based poultry production systems, contributing up to 90% of poultry products in many LIFDCs. FP keeping is a widely practised activity. Although usually requiring low levels of inputs (i.e. land, labour and capital), FP can provide additional income to the generally resource-poor small farmers, especially women. FP can be managed by even the poorer social strata of the local communities. More than 90% of rural families in most LIFDCs keep one or more poultry species (i.e. chickens, ducks, guinea fowls, geese, pigeons, etc.),

and all ethnic groups tend to be involved in FP production. Poultry and their products, especially eggs, have numerous symbolic functions within the context of many social and cultural activities (e.g. special banquets for distinguished guests, gifts, cocks as alarm clocks for the villagers) and/or religious ceremonies (e.g. cocks as offerings to the deities). However, constraints facing FP production systems are related to high mortality (mainly due to Newcastle disease), housing, feeding, breeding, marketing, education/training, credit and information dissemination.

Local communities are mostly familiar with poultry, and poultry keeping is an ancient activity. In the traditional societies, it is common that messages (e.g. thoughts, advices, warnings, encouragements) are delivered and feelings (e.g. appreciation, reprobation) expressed using proverbs and sayings. Weakening the roughness of messages as well as delivering messages and expressing feelings only to the target audience (excluding children as they cannot get the meanings of the used proverbs and sayings) are among the advantages of this way of communication. Thus, poultry and eggs are made use of in many proverbs and sayings.

Finally, I cannot resist sharing with you ten selected proverbs and sayings:

- *“When you eat an egg do not insult the chicken.”* Bantandu (an African ethnic group) proverb
- *“If you carry the egg basket do not dance.”* Ambede (an African ethnic group) proverb
- *“By persevering the egg walks on legs.”* Oromo (Ethiopia) proverb
- *“Where the rooster crows there is a village.”* Schambala (an African ethnic group) proverb
- *“The chicken is never declared innocent in the court of hawks.”* Cape Coast, Ghana
- *“Eggs and metal should not be put in the same sack (or basket).”* Ewe (an African ethnic group) proverb
- *“The chicken that scavenges for food will not sleep hungry.”* Bayombe (an African ethnic group) proverb
- *“An egg today is better than a chicken tomorrow.”* Vietnamese proverb
- *“A chattering bird builds no nest.”* Cameroon proverb
- *“A rooster does not sing on two roofs.”* Ntomba proverb, Democratic Republic of Congo

Research Reports

Research summaries

[In the present issue of this Newsletter, summaries of four research projects are published. Four other summaries as well as background information relating to the research projects already appeared in the previous issue of this Newsletter (Vol. 12 No. 2). The order of the presentation of summaries is not a sign of the importance of the projects. - ED]

For more information or questions relating to these research reports, please contact:

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Helminthosis of free-range chickens in Bangladesh - With emphasis on prevalence and effect on productivity

Dulal Krishna Roy

INTRODUCTION

Out of 125 million poultry approximately 80% are kept under traditional village production systems in Bangladesh. In Bangladesh, poultry rearing in rural scavenging systems faces various hindrances, among

which helminths might play a vital role. Furthermore, village people are not conscious about helminth problems in the chickens and the benefits of deworming.

OBJECTIVES

- To determine the prevalence of gastrointestinal helminths in indigenous and crossbreed chickens in Bangladesh.
- To investigate the impact of helminth infections on two different chicken breeds and their cross.
- To investigate the economic importance of helminths in free-range chickens.

MATERIALS AND METHODS

Post-mortem examinations on 100 Deshi and 100 Sonali chickens, purchased from the Gaibanda district in Northern Bangladesh, were performed for prevalence study. For the experimental study, 270 3-week-old chicks of RIR, Fayoumi and Sonali were divided

into 6 groups (2 for each breed) consisting of 45 chicks. One group of each breed of chicken was given a routine treatment with levamisole hydrochloride (an anthelmintic), the other was kept as a control group with no treatment.

RESULTS

All Deshi and 98% of the Sonali chickens were infested with one or more helminth species. A total of 14

different species of helminths was recorded, three of

which were recorded for the first time in Bangladesh. The average species involvements in the Deshi chickens were significantly higher, and the prevalence of 5 different helminths was also significantly higher in the Deshi compared to the Sonali chickens.

All the non-treated chickens showed a significantly lower weight gain compared with the treated chickens at the end of experiment. The average age at point of lay was delayed in the non-treated groups compared with the treated groups. The average number of eggs

CONCLUSIONS AND RECOMMENDATIONS

A lower parasitic burden was recorded in the Sonali compared to the Deshi chickens. The helminth-infested groups of chickens showed a marked loss in weight gain, and decreased egg production and egg weight. Furthermore, an economic analysis showed that the benefit of treated groups is higher compared with the non-treated groups, where the net profit for the Sonali treated group was the highest.

Our findings suggest that there is a degree of resistance to helminth infections in the Sonali crossbreed.

An experimental study of the control of Newcastle disease in village chickens in Bangladesh

Lalita Rani Barman

INTRODUCTION

Newcastle Disease (ND) is a serious and commonly fatal viral poultry disease, which is present all over the world. In many tropical and subtropical countries, virulent strains of ND virus (NDV) are enzootic. In most developing countries, ND is the most important infectious disease affecting village chickens, and it causes great economic losses. In Bangladesh, ND is

OBJECTIVES

- To investigate the epidemiology of ND in village chickens in Bangladesh.
- To conduct an experiment to compare the effi-

and the average egg weight were significantly higher in the treated groups compared with the non-treated groups. The parasitic burden in Sonali chickens was lower compared with Deshi, and the overall performance of the Sonali crossbreed was found to be good with regard to early sexual maturity and egg production. In contrast, there was little difference in weight gain between parasitised and non-parasitised groups. Treatment of the chickens with anthelmintics on a monthly basis proved to be economically viable.

However, further studies are needed to determine the mechanisms behind these differences. Furthermore, our studies showed that helminth infections play an important role as a hindrance in maximising production and income. Anthelmintic treatments were proved efficient and economically wise. Anthelmintic treatment should be carried out regularly in all village flocks. Furthermore, it is recommended to introduce the Sonali crossbreed chickens in other villages in Bangladesh, because of its apparent resistance towards helminth infections.

popularly known as Ranikhet disease. It is the most notorious malady in backyard poultry, claiming 40-60% of the total mortality. However, no detailed epidemiological studies have been performed. Little is therefore known about mortality patterns and influence of seasonal changes, vaccination status, age and sex of birds in relation to the severity of the disease.

cacy of locally produced and imported ND vaccine.

MATERIALS AND METHODS

The epidemiology of Newcastle disease (ND) was studied in free-range chickens in Bangladesh. The study population was followed for 9 months by farmer interviews, post-mortem examinations (including tissue samples for virus isolation and characterisation) and blood serum collection.

In the experimental study, the efficacies of a locally produced Baby Chick Ranikhet Disease Vaccine (BCRDV) (live lentogenic F-strain), Ranikhet Disease Vaccine (RDV) (live mesogenic M-strain), and a

commercially produced vaccine ND-clone 30 (live lentogenic La Sota) were compared. Two groups of chickens were vaccinated, and one group served as control. Group 1 was vaccinated with BCRDV intraocularly at day 3 and day 28 followed by RDV intramuscularly at day 60. Group 2 was vaccinated with ND-clone 30 intraocularly at day 3, day 28, and day 60. On day 75, the groups were challenged with a velogenic field strain. Blood samples were collected for serum at day 3, day 28, day 60, and day 74 from all groups.

RESULTS

Approximately 90% of the village families reared chickens, of which only 11% regularly vaccinated their chickens against ND. Another 14% of the chicken rearers occasionally vaccinated their chickens and 75% did not vaccinate at all. Mortality due to ND was higher in unvaccinated flocks compared to the vaccinated flocks, i.e. 21.6% and 4.9%, respectively. The mortality was significantly higher in unvaccinated growers compared to chicks and adult birds. There was no significant difference between mortality due to ND in vaccinated or unvaccinated male and female birds. ND outbreaks were more frequent in unvaccinated flocks during November to January (winter) compared to August to October (autumn). It was possible to isolate ND virus (NDV) from all of the 8 samples tested, and 2 isolates were characterized as velogenic NDV. The serological profile of unvaccinated flocks showed that 75% of the adult birds, 7.3%

of the growers and 3.3% of the chicks had NDV antibodies. In the vaccinated flocks, 96.15% of the adult birds, 80.26% of the growers and 55.10% of the chicks had NDV antibodies. There was a significant difference in antibody level between unvaccinated and vaccinated flocks during the study period. Furthermore, there was a highly significant difference in the NDV antibody level between the different age groups for both unvaccinated and vaccinated birds.

Serum titre was significantly higher in Group 1 (local vaccine) as compared to Group 2 (commercial vaccine). When challenged with a velogenic field virus, there was significant difference in the number of clinically affected birds between Group 1 (16.7%) and Group 2 (43.3%). There was no mortality in Group 1, but 10% mortality was observed in Group 2.

CONCLUSIONS AND RECOMMENDATIONS

ND vaccination dramatically decreased the mortality due to ND, but even so was responsible for 21% of the mortality. Overall mortality still remained at 40% in vaccinated flocks due to other diseases. Furthermore, the study showed that a high percentage of village farmers did not vaccinate their chickens, even though a

locally produced vaccine providing good protection against NDV was available. Results indicate that the commercial lentogenic vaccine is not as effective as the combination of locally produced lentogenic and mesogenic vaccines.

It is highly recommended to vaccinate all village chickens against ND, preferably with the locally produced lentogenic F-strain based Baby Chick Ranikhet Disease Vaccine (BCRDV) followed by a mesogenic

M-strain based Ranikhet Disease Vaccine (RDV). Furthermore, measures should be put in place to control the outbreaks of other diseases.

Isolation and pathogenic characterizations of IBDV isolate from an outbreak of IBD in a semi-intensive poultry unit in Bangladesh

Abdul Ahad

INTRODUCTION

Infectious bursal disease virus (IBDV), also known as Gumboro disease, is a contagious disease of young chickens. It is known to be an economically important pathogen of commercial chickens with worldwide distribution. There are two distinct serotypes of IBDV.

Virus strains belonging to serotype 1 are pathogenic, while serotype 2 viruses are avirulent for chickens. Clinical IBD is most commonly recognized in susceptible 3 to 6 week old chickens. It is not known whether the disease is of importance to rural poultry.

OBJECTIVES

- To investigate outbreaks of IBD in different breeds of poultry in a rural area and in an urban area of Bangladesh and to isolate the virus.
- To evaluate the virulence of a local isolate of IBDV in vaccinated and unvaccinated (against IBDV) local Sonali chickens.

MATERIALS AND METHODS

Outbreaks of infectious bursal disease (IBD) in one chick shed at Mirpur Central Poultry Farm, Dhaka (urban area) and six chick rearing units at Madarganj, Jamalpur (rural area) were investigated during the period from July to October 2001. The number of birds in each shed was approximately 1000-2000 in the urban area and 400-500 in the rural units. The age groups of the birds ranged from day-old to two months. Detailed particulars of the outbreaks of IBD including history, age and breed of affected chicks,

flock size, mortality and clinical signs were recorded. Isolation of IBD virus (IBDV) was attempted from representative sample by embryo inoculation, and the identity of the isolate was confirmed by agar-gel precipitation test.

One of the local isolates of IBDV with the titre of $10^{3.15}$ EID₅₀ per 100 μ l was used for an experimental challenge infection of vaccinated and unvaccinated Sonali chickens at 5 weeks of age.

RESULTS

Within the study period seven outbreaks were recorded. The morbidity was almost 100% in all outbreaks while the mortality was 36% in the Mirpur Farm and 13 to 85% in the Madargang area. Three outbreaks were recorded in Nera chickens and four in the breeds Fayoumi and/or Sonali. The birds were affected at the age between 20 and 54 days. IBDV was

isolated from 6 out of seven outbreaks.

After experimental infection in Sonali chicks, morbidity and mortality were recorded to be 27% and 18% in unvaccinated birds and 11% and 3% in vaccinated birds, respectively. It was also found that, 14 and 24 days after 2nd vaccination against IBD at day 35 and

at day 45, there was a significant difference in antibody titre in unvaccinated and vaccinated against IBD

groups of birds.

CONCLUSIONS AND RECOMMENDATIONS

IBD is highly prevalent in different poultry production systems (rural and commercial) in Bangladesh. In this study it was found that mortality was much higher in most of the small flocks in rural areas compared to the commercial flock in the urban area. This might be due to better management practice in the commercial farm. Moreover, it was found that the outbreaks in the rural small flocks occurred almost simultaneously. This might be due to the fact that the farms have very poor bio-security and the technical assistants from the NGOs usually visit all chick units in the rural area at one time. This study revealed, in contrary to the general belief, that Sonali birds are also quite susceptible to IBD once they are placed in intensive farming.

Eleven percent morbidity and 3% mortality following

challenge in vaccinated groups indicate that IBDV vaccines are not 100% protective.

On experimental infection the virus causes lower mortality than natural outbreaks suggesting that a good management coupled with vaccination can prevent mortality to a great extent. However, the commercial vaccine against IBDV did not give full protection against the challenge infection.

It is highly recommended to improve the control of IBD under rural conditions through vaccination of parent flocks and by training the technical personnel on the principles of hygienic management of poultry. The application of commercial vaccines should be further investigated under rural conditions.

Longitudinal study of the causes of mortality in chickens in parent stock flocks in Bangladesh with special emphasis on *Esherichia coli* infections

Md. Reajul Huq

INTRODUCTION

According to the Bangladesh Bureau of Statistics, about 89% of the rural households rear poultry. These birds scavenge in and around farmer's homesteads and meet a major part of the feed requirements in this way, requiring little additional feed, but also resulting in a low productivity. To improve this situation, exotic

chickens are distributed from the government poultry farms. However, these breeds introduce some new disease problems at field level. Hence, it was necessary to investigate the important diseases, which are prevailing in the parent stock flocks.

OBJECTIVES

- The aim of the field study was to provide information on the causes of mortality among the chickens of the government poultry farm, starting from day old through the laying period and quantification of losses attributed to avian colibacillosis.
- The aim of the experimental study was to infect

IBD vaccinated chickens with a field isolate of *Esherichia coli*.

- To assess the economic importance of *Esherichia coli* infections.

MATERIALS AND METHODS

In the observational study, three different parent stock flocks of different ages at Mirpur Government Central Poultry Farm, Bangladesh were studied. Diagnoses were based on clinical signs, gross lesions and bacteriological examinations, when indicated. In the study of experimental colibacillosis, the infection was reproduced with a field isolate of *Escherichia coli* O139 as a mono-infection along with infectious bursal disease

RESULTS

In the observational study, 83% of the dead animals were subjected to necropsy. A significant higher mortality was observed in the youngest flock. In this group, the predominant causes of mortality were IBD (10%), colibacillosis (3%), salmonellosis (3%), aflatoxicosis (1%) and coccidiosis (0.9%). In the adult groups, the predominant causes of mortality were: salmonellosis (2%), colibacillosis (1%), egg bound (0.4%) and cannibalism (0.1%). In the young birds, the cumulative incidence and incidence rate of colibacillosis were higher than those of salmonellosis, whereas the opposite was the situation for the adult birds.

DISCUSSION

From the present as well as previous studies it appears that, in spite of IBD vaccination, there was an outbreak of IBD. Poor biosecurity and other immunosuppressive diseases like aflatoxicosis could be the possible causes of vaccination failure. In the experimental study, significantly higher morbidity and mortality were observed in the unvaccinated, double-infected group than in the unvaccinated, only *E. coli* infected group as well as the vaccinated, only IBD infected group.

CONCLUSIONS AND RECOMMENDATIONS

According to the findings of the present observational study, the disease situation in the investigated parent

(IBD), using a field virus isolate (see also study of Abdul Ahad). This was done in unvaccinated chickens as well as in chickens vaccinated against IBD. The economic analysis was based on the calculation of stock losses due to mortality as well as effect and influence of the IBD vaccine on mortality and feed conversion efficiency of the chickens.

According to the economic analysis of the observational study, the annual loss of revenue was US\$ 7196 due to the total death of 1821 birds in the three flocks. According to present experimental study, the application of vaccine could save a maximum amount of US\$ 186/1000 layers/laying year. However, the vaccine reduces the efficiency of the birds, resulting in an increase of feed conversion ratio, which indicates that to produce the same amount of meat the vaccinated birds need 58% more feed, equalling an amount calculated to be US\$ 177/1000 birds/35 days.

Before challenge, the average feed conversion ratio (FCR) was significantly higher in the vaccinated groups and remained significantly higher in those vaccinated groups, which were challenged with *E. coli* alone or along with IBD virus. This is probably due to stress following the use of the live IBD vaccine and further exacerbation of the condition of the birds due to experimental infection with *E. coli*.

flocks is rather unsatisfactory, not only due to high flock mortality but also because of the possibility of

transmitting some diseases, such as colibacillosis and salmonellosis, to the field level through their offspring. Due to the observed high mortality during the first weeks of life, future investigations should focus on clarification of the importance of vertically transmitted diseases and management during this period in order to work out recommendations for solving this problem. In addition, future investigations should aim at clarifying the reasons for the observed vaccine breaks due to IBD.

From the results of the experimental study, it can be concluded that morbidity and mortality are significantly higher in dual infections. Moreover, application of live IBD vaccine impairs the efficiency of feed conversion. This is further aggravated by *E. coli* infection. Further information is needed on prevailing pre-

disposing factors of colibacillosis, including concurrent infections, degree of virulence of prevailing *E. coli*, presence of mycotoxin in the feed, managerial issues, such as hygienic measures related to rearing shed / hatchery / distribution chain, etc. Moreover, more information on health status in the field level is needed.

To improve the situation at government farm level, it is highly recommended to initiate measures such as: the establishment and maintenance of specific pathogen free grand parent stock flocks; improvement of biosecurity of the rearing sheds for the parent flocks; the hatcheries and the distribution chain. This could save expenses equalling US\$ 7196 per 10334 birds over a period of 4 months, and additionally it would ensure the distribution of healthy birds to the field.

Development Reports

AusAID Southern Africa Newcastle Disease Control Project

Robyn Alders

Team Leader, C.P. 1168, Maputo, Mozambique, E-mail: <robyn@tropical.co.mz>

A three-year project dealing with the control of Newcastle disease (ND) in rural areas in Mozambique, Tanzania and Malawi commenced its activities in July 2002. Mozambique is the lead country and the country in which the project team is based. In Tanzania the project is supporting the community and extension components. In Malawi, the main emphasis is on establishing local capacity to produce the I-2 ND

thermostable vaccine. It is hoped that the three-year project will provide lessons and methodologies which will be of use to other SADC (Southern African Development Community) countries. The project is being funded by the [Australian Agency for International Development](#) (AusAID) in collaboration with the Governments of Malawi, Mozambique and Tanzania.

DESCRIPTION OF THE PROJECT DESIGN

The outcomes of the project are expected to be:

- A strengthened capability of, and relationship between, stakeholders in order to successfully implement ND control programs in Mozambique, Tanzania and Malawi, and
- A decrease in chicken mortality rates caused by

ND in project activity areas.

These outcomes have been designed to help meet the overall project goal of improved rural food security and an improvement in the livelihood of the rural poor.

PROJECT COMPONENTS

There are four components in this project:

- (1) **Community:** The project is assisting with the development of a participatory approach and the establishment of a satisfactory working relationship between village communities, government livestock and extension services and NGOs. Existing NGOs are being encouraged to develop expertise in project activities.
- (2) **Vaccine:** This component aims to achieve a sustainable supply of live, thermostable ND vaccine. In practice this includes securing a supply of master seed, ensuring (1) that the national laboratories have the facilities and trained staff to produce vaccine, and (2) that there is an adequate vaccine distribution system and cost recovery system in place.
- (3) **Extension and training:** This component is providing village farmers with the information, skills and technical support needed to enable them to vaccinate their chickens. This will require the training of extension workers, and especially of women, who will themselves train and provide technical support.

Ghana Poultry Network

Anthony N. Akunzule

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The Ghana Poultry Network (GAPNET) started its operations in small-scale poultry farming in 1997. GAPNET provided technical services to women poultry producers. In 2000, the network coordinator convened meetings of GAPNET with other non-governmental organisations (NGOs) in Accra. In November 2001, GAPNET was inaugurated in Donkokrom after it had its first district workshop for

- (4) **Project management:** This component deals with the efficient, equitable and timely flow of project resources to ensure that project objectives are met. In each country a Country Coordinating Committee has been established with the appointment of Country Coordinators and Country Chairs. Project management is under the responsibility of [GRM International](#), an Australian consulting company. The Team Leader is Dr Robyn Alders <robyn@tropical.co.mz> and the Deputy Team Leader is Dr Mohamed Harun <fullbreak@yahoo.com> from Mozambique. Both are stationed in Maputo.

This project is designed to build on the achievements of research into the control of ND undertaken by the [Australian Centre for International Agricultural Research](#) (ACIAR) and to work in collaboration with NGOs and other donors, such as [International Fund for Agricultural Research](#) (IFAD) in Mozambique. Regular updates on the project activities may be obtained via the project website at:

<http://www.vsap.uq.edu.au/ruralpoultry>.

OBJECTIVES

These include:

- to create awareness of the potentials of the village poultry in national development as a tool for poverty reduction strategy,
- to introduce to school children the keeping of poultry as an income-generating activity,
- to encourage school children to improve poultry keeping by establishing 'School Poultry Network Clubs' in primary and secondary schools,
- to educate children in the rational use of the village environment where feed resources are readily available,
- to organise training workshops for children and women to acquire employable skills in family poultry production in order to stop urban drift,
- to inoculate in school children good practice in animal agriculture, and
- to use small-scale commercial poultry as a strategy in poverty alleviation.

ACHIEVEMENTS

Major achievements of the GAPNET are the following:

- (1) Provision of technical assistance for women in the Afram Plains District to start small-scale commercial poultry production and improve the village poultry,
- (2) Organisation of annual vaccinations of village chickens against Newcastle disease to reduce high mortalities caused by the disease in Kwaekese and Agyata in the Afram Plains District as pilot villages,
- (3) Collaboration with the Danish Network, Heifer Project International, *Ricerca and Cooperazione*, Ghana-Denmark Community Programme and other NGOs in the improvement of productivity of the village chickens,
- (4) Formation of School Poultry Network Clubs in primary and secondary schools in the Afram Plains District and other parts of the country,
- (5) Participation of GAPNET members in the 10th Conference of the Association of Institutions of Tropical Veterinary Medicine (AITVM) in Copenhagen, Denmark, from 24 to 27 August 2001,
- (6) Participation in the 2nd Workshop on Smallholder Poultry Projects in West Africa in Tenkodogo, Burkina Faso, from 24 to 28 September 2002,
- (7) Organisation of a district rural poultry workshop in Donkokrom, Ghana, from 1st to 3rd November 2001 for women and school children, and
- (8) Organisation of a national workshop on rural poultry for NGOs, research institutions and individuals in Accra in February 2002.

FUTURE PLANS

The future plans of the GAPNET are:

- (a) to expand activities in rural poultry production throughout Ghana,
- (b) to establish a national office in Accra and regional offices in all the ten regions of Ghana,
- (c) to establish a national training centre in family poultry production and health management,
- (d) to form School Poultry Network Clubs in schools throughout the country, and
- (e) to write a training manual for different categories

of stakeholder in the village chicken programme.

PROSPECT

GAPNET, whose sources of funding include other NGOs (foreign and local) and individuals, is a growing local NGO with huge potentials of using the village poultry as a poverty reduction strategy programme. Within a year of its operations, it has con-

ducted many activities aimed at improving rural poultry production in the country and creating increased awareness about this very important but generally overlooked poultry sub-sector.

Sahakar Rural Development Project

R.S.N. Raju

Co-ordinator, Sahakar Rural Development Project, Hyderabad, India, E-mail: <srdp@hotmail.com>

Sahakar Rural Development Project (SRDP), a voluntary organization established in the year 1998, is actively involved in propagating the improved poultry germoplasm by providing the necessary inputs and technical know-how for the rearing of chickens to rural and tribal people of Andhra Pradesh, India. It works together with Women Groups as well as various other organisations including NGOs, Animal Husbandry Department and Corporations which are important nodal agencies for this organisation.

backyard poultry production, the protein requirement of the rural population particularly growing children, pregnant and breast-feeding women. It also helps to improve the economic conditions of rural women and unemployed youth through poultry production. This organization has good collaboration with research institutes and agricultural universities, veterinary and para-veterinary staff and other extension agencies to monitor and coordinate the activities.

The objective of the organization is to cover, through

News

More male chicks with garlic

[Source: Poultry International, April 2003, Vol. 42, No. 4, pp. 46-47.]

Injecting embryos in the early stages of development with a garlic extract increased the proportion of male chicks in a trial in the Middle East [*Mottaghitlab M. & Valizadeh, E., 2002. Garlic extract and aromatase interactions on sex differentiation in chicks. British Poultry Science 43: S62*]. As male broilers have faster

growth and better feed conversion than females, it is not surprising that attempts have been made to increase the proportion of male birds hatched. Scientists compared the relative potencies of garlic extract and several aromatase inhibitors on chick sex differentiation. Aromatase inhibition was shown in previous

work to cause testicular development in a genetic female chicken.

The eggs were injected with one of the compounds (or distilled water as a control) on day 5, and the resulting chicks were sexed when hatched and reared to 8 weeks

of age. The male:female ratio was 1.1:1 for the control, significantly lower than all the other treatments. The garlic extract produced a ratio of 2.6:1, which was increased to over 5:1 with the other aromatase inhibitors. There were no differences in morphology or performance of the broilers to 8 weeks of age.

Call for case studies of family poultry projects to be posted on the INFPD website

The FAO [Animal Production and Health Division](#) (AGA) has a sub-programme entitled “The Contribution of Livestock to Poverty Alleviation” which focuses mainly on short-cycle species (poultry, sheep, goats etc.) in low-input production systems. AGA recognizes that there are many agencies and non-governmental organizations (NGOs) who also have a wealth of experience in running poultry and livestock

projects. One of the problems is that this wealth of experience is not always readily available for the benefit of others. AGA would like to offer the opportunity for NGOs, international agencies and donors to post case studies of their projects on the FAO hosted INFPD website

(<http://www.fao.org/ag/againfo/subjects/en/infpd/home.html>).

Further information can be obtained from the two officers at the Animal Production Service (AGAP), FAO Animal Production and Health Division, Rome, Italy:

- *Emmanuelle Guerne Bleich, Animal Production Officer (Small Animals), E-mail: <Emmanuelle.GuerneBleich@fao.org>*
- *Simon Mack, Senior Officer, Livestock Production Systems Group, E-mail: <Simon.Mack@fao.org>*

IFS-CODESRIA Sustainable Agriculture Initiative Team Research Grants

The International Foundation for Science (IFS) and the Council for the Development of Social Science Research in Africa (CODESRIA) are pleased to announce a new joint research grants programme for young researchers in Sub-Saharan Africa. Research grants will be awarded to multidisciplinary teams for research on the topic of sustainable agriculture for food production in Africa. Each team member will be eligible for up to USD 12,000 in research funding as well as a range of supporting services. The next deadline for research grant applications is September 15, 2003.

Research projects should specifically address sustainable food production in terms of:

- agricultural/agroforestry production systems (*including family poultry*);
- post-harvest and handling systems;
- services provision;
- institutions (i.e. rules and norms); and
- biotechnology.

Each of these themes can be addressed from economic, ecological, social, health, gender, and technological perspectives.

Applicants must be citizens of a Sub-Saharan African country, 45 years of age or younger, holders of at minimum an MA/MSc degree or the equivalent, attached to a research institution in Africa, and at the beginning of their research career. Women are particu-

larly encouraged to apply.

- Detailed information about Sustainable Agriculture Initiative Team Research Grants, including additional eligibility criteria and application forms, will shortly be available on the Internet, at the following URL:
http://www.ifs.se/Special_Programmes/SustainableAgriculture.htm
Contact person: Eren Zink, IFS Programme Co-ordinator in Social Sciences, E-mail: <eren.zink@ifs.se>
- For further information about IFS and its other research grants programmes please visit its website <http://www.ifs.se>, or for more information about CODESRIA and its numerous activities please refer to <http://www.codesria.org>.

Publications

Poultry Manual: Managing chickens

The manual, 'Manuel d'aviculture: Elevage de la poule', is a practical and easy-to-use guide to backyard chicken keeping. It is written in simple French by Dr. Mohamadoun Bathily, a veterinarian from Mali. Objectives of the manual, published in June 2002, are (i) to provide beginners interested in poultry keeping with advice and tips; (ii) to highlight problems related to poultry farming, and (iii) to suggest solutions to problems facing intensified poultry keeping. The publication consists of ten chapters [Anatomy and physi-

ology of the chicken, Chicken breeds, Rearing equipment, Feeding, Poultry housing, Management, Some useful tips in poultry keeping, Some problems related to poultry rearing, Avian diseases, Hygiene and prophylaxis] and contains eighteen illustrations and thirteen tables. The book will help people who have a few chickens to produce meat and eggs for their own use and to sell to other people. It will also be useful for small-scale farming projects as well as in literacy and adult education.

Copies of this manual (FCFA 5000 or about Euro 7.65 per copy) can be obtained from the author at:

- Dr. Mohamadoun Bathily, B.P. 8034, Bamako, Mali, Tel: (+223) 2204662, Portable: (+223) 6785083, E-mail: <nbathio@yahoo.fr>

GRM International/AusAID Rural Poultry e-Newsletter

The e-Newsletter replaces the Net-Forum on the Rural Poultry Website. This means that the Net-Forum Mailing list members will be kept informed on general rural poultry matters. Members are encouraged to participate and share information on rural poultry. The purpose of the e-Newsletter is mainly a communication tool to be used as a source of information on rural poultry. The e-Newsletter, whose first edition was published in April 2003, will be forwarded via e-mail

to all the Rural Poultry members listed on the Website Mailing list. It is hoped that this approach will facilitate the viewing of information on Rural Poultry without having to go on the Website which can be difficult in some countries. Hopefully, this will be an important source of information where some questions can be answered, new publications can be advertised and information on rural poultry can be shared. Views and opinions expressed are those of the authors.

For further information, please contact:

- *Marie-France Wellington*
Rural Poultry e-Newsletter Editor & Rural Poultry Website Coordinator
Tel: (+61) 7 3025 8500, Fax: (+61) 7 3025 8555, E-mail: <ruralpoultry@grm.com.au>
Website: <http://www.vsap.uq.edu.au/ruralpoultry>

Controlling Newcastle Disease in Village Chickens: A Laboratory Manual

This manual presents a step-by-step guide to the production and testing of I-2 Newcastle disease (ND) vaccine. It completes the three-volume set dealing with aspects related to the control of ND in village chickens, published by the [Australian Centre for International Agricultural Research](#) (ACIAR). The manual was written by M. Young, R. Alders, S. Grimes, P. Spradbrow, P. Dias, A. da Silva and Q. Lobo, especially for laboratory technicians and scientists involved in local production of I-2 ND vaccine in developing countries. The information presented in this manual should also assist national veterinary authorities to decide if available resources and facilities will support local production of I-2 vaccine, and assist

vaccine producers to prepare applications for registration of I-2 vaccine.

The manual consists of six sections [An introduction to ND and its control; Laboratory management and maintenance; I-2 ND vaccine production; I-2 ND vaccine testing; Practical aspects of vaccine distribution; and ND diagnosis]. A bibliography, glossary, and a number of appendixes [including preparation of reagents and solutions; general list of laboratory glassware and consumables; registration of vaccine; and other useful reference information] complete the manual.

Copies of this manual (ACIAR Monograph No. 87, 142 pp. 2002) and other related manuals on Newcastle Disease are available free of charge to those working in developing countries and may be obtained from:

- *ACIAR Communications Unit, GPO Box 1571, Canberra, ACT 2601, Australia*
Fax: (+61) 2 6217 0501, Website: <http://www.aciar.gov.au> or
Dr. John W. Copland <copland@aciarc.gov.au>

International Diary

FAO Poultry Meeting in Rome, Italy

An FAO Poultry Meeting was held in Rome, Italy, from 30 to 31 July 2003. The objective of the meeting was to produce a paper reflecting FAO [Animal Production and Health Division](#) (AGA) position on the poultry sector. Through an author's contract, a consultant interacted with the different officers who are dealing with poultry activities within the Division and *INFPD Newsletter Vol. 13, No. 1*

consolidated all issues with a view to finalizing a vision-paper for AGA. This work was further consolidated and validated during an informal workshop involving resource-persons, INFPD members and non-members. It was discussed, from different angles, what should be the role of FAO in the poultry sector. The proceeding of this gathering, which will contain all

presented papers and discussions, are being finalized and will be published in the near future.

Further information can be obtained from:

- *Dr. Emmanuelle Guerne Bleich, FAO Animal Production Officer (Small Animals),*
E-mail: <Emmanuelle.GuerneBleich@fao.org>

18th Latin-American Poultry Congress in Santa Cruz, Bolivia

The Congress will be held from 7 to 10 October 2003 at the “Los Tajibos” Convention Hotel and Center in Santa Cruz, Bolivia. The general theme of the Congress, which has Spanish as the official language, is “Food Security for Development”. The Congress will be structured upon workshops, conferences and plenary sessions that will bring multidisciplinary perspectives on poultry health, meat and egg production, feed resources, feed industry, processing of poultry products, nutrition, poultry breeding, management of poultry flocks, family poultry, marketing, transport, socio-

economics, etc.

On 7 October 2003, the 2nd Family Poultry Pre-Congress, with the theme “Family Poultry and Food Security for Development”, will be organized. Papers to be presented will cover a wide range of issues (general introduction, cases studies from Latin America, feeds and feeding, genetics and genetic resources, health, poultry as a tool for rural development, etc.). Each presentation will be followed by wide discussions.

- For further information or questions relating to 18th Latin-American Poultry Congress, please contact:
XVIII Congreso Latinoamericano de Avicultura, Comité Organizador, Casilla Postal 1133, Santa Cruz, Bolivia, Teléfonos: (591 3) 3334807 - 3340765, Fax: (591 3) 3331528, 4807,
Correos electrónicos: <informes@xviii-alabolivia.org> - <conferencias@xviii-alabolivia.org>
Página web: <http://www.xviii-alabolivia.org>
- For information or questions relating to the 2nd Family Poultry Pre-Congress, please contact:
Dr. Emmanuelle Guerne Bleich, FAO Animal Production Officer (Small Animals),
E-mail: <Emmanuelle.GuerneBleich@fao.org>

XXII World's Poultry Congress in Istanbul, Turkey

The XXII World's Poultry Congress will take place at the ICEC (Istanbul Convention and Exhibition Center) in Istanbul, Turkey, from 8 to 13 June 2004. The basic scientific program will consist of keynote lectures and free papers in several areas of poultry science. There will be ample time for poster viewing during the whole

congress. The general topics to be covered include: Breeding and Genetics; Biotechnology; Nutrition; Health and Hygiene; Husbandry and Animal Welfare; Environment; Economics; Marketing; and Education. It is expected that INFPD will organize a symposium during this event.

Please note following important deadlines:

- Call for abstracts: April 1, 2003
- Deadline for abstract submission: September 1, 2003
- Application for a fellowship program: October 31, 2003

- Notification of acceptance of abstract and call for full text: December 15, 2003
- Deadline for full text: March 1, 2004
- Early registration: January 5, 2004 and April 15, 2004

More information on scientific matters can be obtained from:

Secretary of WPSA Turkish Branch

Dr. Servet Yalçın, Ege University, Faculty of Agriculture, Department of Animal Science, 35100 Izmir, Turkey

Tel: +90 232 388 4000/1449, Fax: +90 232 388 1867, E-mail: <yalcin@ziraat.ege.edu.tr>

Detailed information about the congress are progressively made also available on its website at:

<http://www.wpc2004.org>