The Role of the World’s Poultry Science Association (WPSA) in Promoting Poultry Research, Training and Education

R.A.E. Pym
WPSA structure and objective

- 7000 members world wide
- Branches in 75 countries

Objective:

To promote advancement of knowledge of all aspects of poultry science and the poultry industry world wide,

- by facilitating exchange of information through the organisation of local, national and regional seminars, symposia and conferences and of the World’s Poultry Congresses.

e.g. organisation of NZPIC
WPSA

- Motto: “Working together to feed the world”

- Underpinning pillars of Education, Organisation, Research

- Publishes World’s Poultry Science Journal (WPSJ) - provided to all members in hard copy or on-line
WPSA Federations

• European Federation

  Has 12 working groups- including genetics and breeding, nutrition, meat and egg quality, poultry welfare, avian physiology etc. – WGs organise focussed workshops, symposia and conferences

• Asian Pacific Federation

  More recently established. Two working groups: Small-scale family poultry farming and Water fowl
World’s Poultry Congresses

- Organised every four years
- First meeting in The Netherlands in 1921, last meeting 23rd WPC in Brisbane in 2008, next meeting in Salvador, Brazil in 2012.
- Program covering all aspects of poultry science and technology, economics, marketing, government policy etc
- Accompanied by a large poultry trade exhibition
WPSA programmes

• Travel grant programme
  – To assist young (<40 years) people from both developed and developing countries involved in poultry research and/or the poultry industry, to attend international conferences. Application forms available on the WPSA website www.wpsa.com

• Speakers Bureau
  – Provides funds to cover international travel for invited speakers at developing country branch meetings
Most of World Population Growth (98%) Occurring in Developing Countries
## Production (m MT) of poultry meat and eggs

<table>
<thead>
<tr>
<th>Product</th>
<th>Country</th>
<th>2006</th>
<th>2016</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry meat</td>
<td>Developing</td>
<td>46.9</td>
<td>65.7</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>Developed</td>
<td>35.8</td>
<td>44.6</td>
<td>24.6</td>
</tr>
<tr>
<td>Eggs</td>
<td>Developing</td>
<td>42.6</td>
<td>57.1</td>
<td>34.0</td>
</tr>
<tr>
<td></td>
<td>Developed</td>
<td>18.5</td>
<td>20.2</td>
<td>9.2</td>
</tr>
</tbody>
</table>
Consumption of chicken meat and eggs (kg/capita) (FAOSTATS)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken meat</td>
<td>USA</td>
<td>35.5</td>
<td>39.0</td>
<td>44.3</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>5.1</td>
<td>6.8</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>Nigeria</td>
<td>1.5</td>
<td>1.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Eggs</td>
<td>USA</td>
<td>13.4</td>
<td>14.5</td>
<td>14.8</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>11.0</td>
<td>13.6</td>
<td>17.5</td>
</tr>
<tr>
<td></td>
<td>Nigeria</td>
<td>3.1</td>
<td>3.2</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Contribution of WPSA towards efficiency and sustainability of poultry production in developing countries

• Increasing awareness within WPSA of the importance of poultry meat and eggs to meet protein needs in developing countries

• Primary role through organisation of international, national and local meetings for information exchange on science and practice of poultry production

• Impact on efficiency and sustainability of poultry production and price and availability of poultry meat and eggs
Contribution of WPSA towards efficiency and sustainability of poultry production in developing countries (cont)

- Recognition within Association of special needs of developing countries relating to the structure of the poultry industry.
- In many countries there are parallel industries that are almost independent.
- Sector 1 and 2 commercial production on the one hand, and sector 4 small-scale scavenging flocks in rural regions, on the other.
- Sector 3 small-scale “commercial” goes some way towards bridging the gap.
WPSA commitment to small-scale family poultry farming (SSFPF)

- Commitment to SSFPF since WPC1992 Amsterdam
- Formation of WG on SSFPF in APF at APFC 2002
- Inclusion of INFPD as global WG of WPSA at EPC2002
- Inaugural meeting APF WG SSFPF at 4IPSS Bangladesh 2005
- APF WG workshop on HPAI and SSFPF sponsored by WPSA, FAO and CTA, Bangkok, March 2007
WPSA Asian Pacific Federation working group on small-scale family poultry farming

• Mooted at WPC2000 in Montreal and championed by Bruce Sheldon
• Aim to give WPSA direct involvement in the FPF area and provide a global balance to INFPD’s activities in African continent
• Chairman, Dr Quazi Huque elected in 2002 at 7th WPSA APF conference in Australia
• Inaugural meeting of working group held during 4th International Poultry Show and seminar in Dhaka in March 2005
WPC2008 workshop on SSFPF

There was a major stream on poultry production in developing countries at WPC2008.

- Invited papers on SSFPF were published in a special edition of WPSJ in June 2009.
- Final session workshop at WPC2008 on cooperation and collaboration between stakeholders involved in support for SSFPF.
- Workshop recommendation for an overarching entity *Poulet Sans Frontieres* with membership from all stakeholders to provide global coordination of support for SSFPF.
The desirability for collaboration and cooperation between agencies supporting family poultry farming

- Many agencies supporting FPF
- Limited Communication despite best efforts of INFPD, FAO and WPSA and others to establish forums for discussion.
- Meetings but little follow-up interaction
- A need for greater technical input from poultry scientists into NGO-supported poultry programs?
- A need for greater discussion of aid programs to assist them to achieve target outcomes and to be SUSTAINABLE
WPSA and support for commercial production in developing countries

• WPSA has traditionally supported the commercial industry worldwide

• A need to focus on development of the commercial industry to meet the poultry meat and egg needs of urban and peri-urban dwellers in developing countries.

• These needs will only be met by commercial production

• To facilitate this, WPSA has recently established a Mediterranean Poultry Network, with the specific aim of focussing on the development of the poultry industry in the middle east and Northern Africa.

• This has been facilitated by the establishment of a biennial “Mediterranean Poultry Summit” meeting and linkages with WVPA, who are active in Northern Africa.
African Poultry Network

• Difficulties associated with the proposed development of a “WPSA African Federation” has led to the proposal for the development of a “virtual African Federation in the form of a “Sub-Saharan Poultry Network” whose aim is to establish linkages between researchers, educators and industry personnel and producers, through electronic means of communication.

• The focus is on the development of the poultry industries and of poultry research capability throughout the region - across ALL sectors of the industry.

• A workshop to bring the main players together was organised following the European Poultry Conference in Tours, France in August 2010.

• Since then, an enthusiastic 5-person Steering committee has been established and is presently in the process of developing a “road map” and a Constitution for the Network.
Societal concerns

Despite obvious success of the commercial poultry industry in developed countries, concerns have emerged:

• Disease threats (HPAI)
• Food safety and quality
• Animal welfare
• Environmental impact
• Loss of biodiversity

• Disenfranchisement of small-scale poultry producers in developing countries through competition with large-scale commercial operations, or importation of poultry products
Challenge to Industry

• Keynote address at WPC2008 by John Hodges “Emerging boundaries for poultry production: Challenges, opportunities and dangers”

• Challenge to industry to examine its practices from social equity and sustainability perspectives.

• Led to a “poultry think tank” meeting in Freising Germany, in June 2009

• Think tank participants from FAO, WPSA and large commercial breeding companies
Poultry Think Tank (cont)

Concerns:

• Diseases and food safety
• Welfare of animals
• Environmental impact
• Loss of biodiversity
• Impact of IPR and patents
• Impact on small producers
• WTO free-trade policies
• Concentration of ownership
Issues for concern

Welfare
Transports of delight!
Cock fighting
Issues for concern

WTO “free trade” policies and importation of poultry products

• “Dumping” of product on world market (e.g. frozen drumsticks) at well below cost of production in importing country
• Disastrous consequences for local production
• Need to establish dialogue with WTO decision makers to emphasise the negative social and long-term development implications of these policies.
Issues for concern

Feed ingredient availability:
• Feed accounts for ~70% of production costs under confinement rearing and feeding

• Feed ingredient costs increasing rapidly in response to loss or use of arable land from urban spread, biofuel production, and climate change.

• Many countries not or only barely able to provide grain and plant protein products to meet the needs of the human population.

• A critical element in the development of a viable and sustainable poultry industry, is the country’s capacity to produce sufficient quantities of suitable feed ingredients at affordable prices which are either not used for human nutrition or which are surplus to those needs.
Issues for concern

Loss of biodiversity and environmental adaptation:

• Small genetic base of commercial breeds - risks?
• Strains selected in temperate climates - birds not heat adapted
• Indiscriminate cross breeding between indigenous and commercial stock - loss of broodiness and capacity to cope with less than optimal environment.
• On positive side, recognition of the huge pool of genetic variation in indigenous poultry in village flocks in developing countries globally and in the fancy breeders flocks in developed countries.
Education and training and poultry research capability

A fundamental requirement for the development of a viable and sustainable poultry industry, is education and training of all players in the industry

- Requires establishment of appropriate curricula in schools and technical institutions and industry training courses run by well qualified persons
- Problems with increasing level of in-house research, IPR and patents
- Desirability of publically funded training and research facilities appropriate for the country’s/ region’s needs
- Desirability for establishment of communication channels with other scientists and educators, nationally and internationally
- Recognition that most problems are multi-faceted and require a multi-disciplinary (systems) approach
One of the recommendations from the Freising meeting was the need for input from a wider array of stakeholders in the discussion.

Representatives from FAO took this on and organised a session at EPC on Tuesday- “The FAO Programme” which provided such input and discussion.

A summary of the discussions and recommendations from the session will be prepared shortly and published in the World’s Poultry Science Journal
Conclusions

• WPSA has played a meaningful role in facilitating poultry research, training and education globally through the organisation of congresses, conferences, symposia, seminars and workshops, through collaborative activities with other organisations, and through direct support through its established programmes.

• In recent times there has been an increasing focus on support for research and training in the developing countries, where much of the projected global increase in poultry meat and egg production and consumption will take place.
Conclusions (cont.)

• Poultry will play an increasingly important role in meeting the world’s needs for high quality animal protein, but there are very significant challenges ahead to ensure that systems in all production sectors in developed and developing countries, are efficient, socially equitable and, very importantly, sustainable.

• WPSA has an important role to play in facilitating this.
Thank you