CIVAS
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RABIES EDUCATION IN JAMPANG TENGAH SUBDISTRICT, SUKABUMI DISTRICT

Center for Indonesian Veterinary Analytical Studies (CIVAS) in collaboration with the Livestock Service Office of Sukabumi District and Global Alliance for Rabies Control (GARC) conducted Rabies education in schools and dog owners in Jamapng Tengah Subdistrict in Sukabumi District. The program is focused on children and the wild boar hunting society. Children were select because they are more open, could easily receive new information and are the future generation (agent of change). Meanwhile, the wild boar hunting society is also focused in the program because they are against rabies vaccination; they believe that vaccination will weaken their dogs. The problem is they often bring the dogs into the woods to hunt and interact with local wild species, putting the dogs at a high risk of rabies exposure.

The length of the program is 1 year, starting from December 2009 to December 2010. The program was focused in five villages within the district, Bojong Jengkol, Jampang Tengah, Panumbangan, Bojong Lopang, and Cijulang villages. Jampang Tengah district was selected because there was a significant amount of rabid dog bite cases and human fatalities in 2008. Through this program, Jampang Tengah is expected to be an example for other district on rabies prevention and mitigation.

Target audiences of rabies education in schools were 5th grade Elementary School children, 2nd grade Junior High School students, and 2nd grade Senior High School students. The objective of this grade selection is so students who have received rabies education could pass on the information to their juniors. Also school children are more critical and could readily implement new knowledge they have acquired. The benefits of this program might not be immediately felt or seen, but it is expected that they will remember and understand how to handle rabies cases in the future. Meanwhile, hunting dog owners are expected to at least understand the importance of vaccinating their animals.

Several approaches were implemented with the intention of identifying the best model for rabies education. The education media used was power point presentation, comic book, and flash movie for elementary school students, power point presentation, booklet, and rabies movie for junior and senior high school students. Meanwhile, for the wild boar hunting society, the program only used one model, one session using a flip chart and another session watching a rabies movie.

1ST INTERNATIONAL CONGRESS OF SOUTH EAST ASIA VETERINARY SCHOOL ASSOCIATION (SEAVSA) "ANIMAL HEALTH AND PRODUCTION FOR BETTER ASEAN QUALITY OF LIFE - CHALLENGE OF VETERINARY EDUCATION"

Bogor, 20 July 2010. The World Animal Health Organization (OIE/WAHO) on October 2009 held a meeting between Deans from all Veterinary Medicine Faculties/Schools in the World. One result of the meeting was a recommendation for each Nation or Nations within a region to establish a certifying Veterinary Institute which aims to increase the integrity and collaboration between Nations in a region. As a response to that recommendation, on December 7, 2009, Veterinary Medicine Faculties/Schools in ASEAN established the South East Asia Veterinary School Association (SEAVSA) in Putra Jaya, Malaysia.

In responding to global challenges from a veterinary perspective, SEAVSA realized the importance of its organization in providing answers for veterinary services in education through collaboration and contribution among veterinary medicine faculties/schools in ASEAN. SEAVSA held its 1st congress in Bogor on July 20 to 22, 2010, with theme "Animal Health and Production for Better ASEAN Quality of Life - Challenge of Veterinary Education" hosted by the Faculty of Veterinary Medicine of Bogor Agricultural University. The congress discussed 4 main topics, which are veterinary education and profession; biodiversity and biomedical research; veterinary public health, zoonosis and food safety; and animal health, ecohealth and livestock production.

The congress aimed to build communication between veterinarians, professionals, and researchers in each of their specific disciplines to communicate ideas, knowledge, and current issues in the form of scientific writings. The congress also held a meeting between deans of Veterinary Medicine Faculties in ASEAN to discuss collaboration between faculties to increase the education quality to achieve better veterinary services for the public.

The 1st International Congress of SEAVSA was opened on July 20, 2010, by Vice Rector 1 of the Bogor Agricultural University on behave of the Rector. Following the opening ceremony was a plenary session that brought forth several speakers: Animal Health Director for the Directorate General of Livestock Services Dr. Agus Wiyono, SEAVSA President Dr. Bashir Ahmad Fateh Mohamed, Vice Dean of the Veterinary Medicine Faculty in Kasetsart University - Thailand, and Dr. Gradner Murray from OIE Subregional Representative for South East Asia.

The congress was held for 3 days (July 20 to 22, 2010) and was attended by 10 SEAVSA member veterinary medicine faculties, educational institutes in ASEAN, and other veterinary-related bodies, such as research institutes, companies, and non-government organizations.

Center for Indonesian Veterinary Analytical Studies (CIVAS), as the only non-government organization (NGO) focused on animal health, animal welfare, and food safety, also participated in the congress by giving 3 oral presentations on studies that CIVAS had done with the Indonesian-Dutch Bilateral project for Avian Influenza Control in Indonesia. The presentations were "Seasonal Impact on Highly Pathogenic Avian Influenza (HPAI) in Chicken Coming to Poultry Collecting Facilities (PCFs) in Jakarta" presented by Andri Jatikusumah, "Avian Influenza Detection in Incoming Chickens and The Environment of Poultry Collecting Facilities (PCFs) in DKI Jakarta" yang presented by Albertus Teguh Muljono and "Antibody Responses to Avian Influenza Vaccination in Broiler Chickens in Indonesia" presented by Erianto Nugroho.

The study presented by Andri Jatikusumah was about the relation between seasons in Indonesia, the rainy and dry season, and cases of HPAI detected in Poultry Collecting Facilities (PCFs). The study concluded that statistically there was no significant difference between HPAI cases found in the rainy season and dry season even though the percentage of HPAI cases found in the rainy season was higher compared to the dry season and a spike in cases was identified during the change between seasons. Meanwhile the study presented by Albertus Teguh Muljono found AI virus in approximately 80% of PCFs studied. The virus was found in chickens coming to the PCF, the PCF environment and sentinel chickens.

Meanwhile antibody detection found 69.4% of spent chicken in PCFs had titers more than 2 Log 4. Overall AI infected chickens in PCFs in Jakarta were from Lampung, Central Java, and Yogyakarta provinces. The study presented by Erianto Nugroho on AI vaccination in broiler chickens in Indonesia found that vaccination in broilers on age 1, 7, 10 or 14 days using inactive HPAI vaccines could not produce mean antibody titers considered to be protective, therefore further study in combination with a challenge test (Laboratory scale) is needed to measure the effectiveness of vaccination more accurately.

In total there were 45 oral presentations, 50 study posters, and 10 keynote speakers during the plenary. Overall the 1st International Congress of SEAVSA was a success as there were many participants attending and information shared during the congress.

Finally, from the congress hopefully SEAVSA can improve its integrity in understanding the new scope of activities, and build communication among professionals and various educational institutes in answering the challenge of veterinary education on animal health and production for better ASEAN Quality of Life.

DETECTION OF AVIAN INFLUENZA VIRUS IN POULTRY COLLECTING FACILITIES (PCFS) IN DKI JAKARTA

One study currently ongoing in CIVAS is a study on the Detection of Avian Influenza in Poultry Collecting Facilities (PCFs) in DKI Jakarta. The study is now entering its 5th month. It was designed based on previous studies in 2007 and 2008 where samples from 192 dead sentinel found 95.31% of the samples positive for H5 with rt-PCR tests. Also in the previous study, 32 of 38 (84.2%) PCFs studied were AI infected or in other words H5 AI viruses were found present in 84.2% PCFs studied.

But results of the previous study could not explain the source of the virus present at the PCFs and its environment. Therefore this one year study in PCFs in Jakarta was designed to address that issue. Objectives of this study are (1) to detect the presence of AI viruses in the environment and poultry coming to PCFs, (2) to

measure the frequency of AI infected birds coming to PCFs, (3) to identify the serology status of AI infected birds, especially layer chickens and spent parent stock, coming to PCFs, (4) to identify farms/areas from where AI infected birds come from, and (5) to identify patterns of AI incidences in one year, and (6) to measure the level of biosecurity application in PCFs and transportation vehicles.

Entering the 6th month of the study, sentinel chickens (chickens not vaccinated against AI) were placed to detect virus circulation in PCFs. The chickens were rested in Bogor for 1 week in a disease-free location (sterile) for climate adaptation and to also wait for test results of serum samples submitted to the Fish and Animal Health Center (BKHI) laboratory. All samples resulted negative titer for AI hence the sentinels could be distributed to all 40 PCFs studied in Jakarta. Sentinels were placed in each studied PCF starting 12 October 2009 and will be placed there for 3 weeks. Tracheal swab samples will be collected from every sentinel that died at the PCFs. Tracheal swab, serum, and environmental samples will be tested at the Fish and Animal Health Center laboratory in DKI Jakarta.

SEMINAR ON AVIAN INFLUENZA FIELD TRIAL VACCINATION STUDY REPORT

On August 18, 2008, a seminar was held on Avian Influenza (AI) Field Trial Vaccination Study Report in Lido, Bogor district. The study was collaboration between the Indonesian Ministry of Agriculture, the Livestock Service Office of Sukabumi district, Wageningen International, and Center for Indonesian Veterinary Analytical Studies (CIVAS). The seminar was attended by representative of the Animal Health Directorate, Ronny Mudigdo, DVM; representative of the Veterinary Research Institute (Bbalitvet), Abdul Adjid, DVM, MS; Head of the Livestock Service Office of Sukabumi district, Ir. Asep Sugianto, MM and staff; representatives from Wageningen International, Ivo Classen and Annemarie Bouma; and guests from vaccine manufacturer PT. Medion, the Food and Agriculture Organization (FAO), and from farms involved in the two year study on AI field trial vaccination.

In his opening remark, Head of the Livestock Service Office of Sukabumi district thanked all parties, especially CIVAS, for all the cooperation in the last 2 years in helping disease control, not only AI, but also other zoonotic diseases such as rabies which is endemic in Sukabumi district. He hoped the good collaboration could be continued and he also invited donors to help animal disease mitigation programs in Sukabumi district. From Wageningen International, Ivo Classen warmly welcomed the invitation to help control disease in Sukabumi district from the Head of the Livestock Service Office. Ivo said the report of this study was written since the study ended last year, but further discussion and analysis was required, hence it was then reported at the time the seminar was held. Parts of the report had been written as an article in OIE's international journal in 2008 by Annemarie Bouma. Representative from the Animal Health Directorate expressed his appreciation to all parties involved in finishing the study, thus all of the results could be reported through the seminar.

The report was presented by CIVAS Executive Director, Albertus Teguh Muljono, DVM and was continued with a question and answer session. The study concluded that commercial layer treatment farms given 3 times vaccination at 4, 10, and 16-18 weeks of age using a homologous local vaccine had better antibody titers compared to control farms given the farm's own vaccination program and vaccine. Meanwhile, broiler native chicken treatment farms given 2 times vaccination at 10 and 30 days had significantly different antibody titers compared to control farms that were given 1 time vaccination at 10 days of age. Titers in native chickens were below the level of protective titer recommended by the government, which is 24, but had a rising tendency, even though it seemed very slow. Besides that, even though ring vaccination conducted in native chickens in a 1 km radius from treatment farms had produced low antibody titers, but the proportion of native chickens with antibody titers ≥24 in those areas was significantly higher compared to the proportion of birds with antibody titers ≥24 in areas surrounding control farms. This study also demonstrated that sentinel chickens could be used as a DIVA strategy for AI control in poultry in Indonesia.

CIVAS 4TH ANNIVERSARY HALF DAY SEMINAR

On Saturday, January 16, 2010, Center for Indonesian Veterinary Analytical Studies (CIVAS) held a half day seminar in Bogor in celebration of CIVAS' 4th anniversary. The seminar was titled "Globalization, Climate Change, and Animal Diseases" and presenting in the seminar were Drs. Haneda Sri Mulyanto, MAS, Assistant Deputy of Climate Change Effect Control from the Climate Change Mitigation Division of the Ministry of Environment with "Climate Change and Its Effect to Indonesia", RP. Agus Lelana, DVM, Sp.MP, MSi, lecturer at the Faculty of Veterinary Medicine of Bogor Agricultural University with "The Animal Husbandry and Animal Health Act in Addressing the Challenges of Globalization and Climate Change", and Tri Satya Putri Naipospos, DVM, M.Phil, Ph.D from Center for Indonesian Veterinary Analytical Studies (CIVAS) with "The Effect of Climate Change on Animal Diseases".

In his presentation, Drs. Haneda stated that global warming could very much affect Indonesia. Extreme climate conditions tend to rise; many regions in Indonesia have experienced multiple hazards, particularly in Java, Sumatra, and Kalimantan islands. There is significantly high rain fall in December to January in all parts of Java Island and the eastern parts of Indonesia, such as Bali, NTB and NTT, increasing the risks of flooding. Also, many regions in Indonesia are vulnerable to drought, flooding, forest fires, and disease outbreaks in humans.

The conclusion from Dr. Agus Lelana's presentation is that Act No. 18/2009 on Animal Husbandry and Animal Health has anticipated globalization and global warming issues. The Act could be used as a legal basis for further regulation development for globalization and global warming issues. Also implementation of the Act in issues related to globalization and global warming is in the form of comprehensive actions and must be a concern of all institutions, officials, and individuals involved.

Peserta Seminar Globalisasi, Perubahan Iklim dan Penyakit HewanIn her presentation, Dr. Tri Satya Naipospos revealed that there are many scientific literatures on the effect of climate change on health and disease, but most are focused on human health and vector-borne diseases. The World Animal Health Organization (OIE) in its 77th General Session in 2009 stated that due to globalization and climate change, the world is continuously facing new emerging and re-emerging animal diseases. Disease outbreaks in domestic and wild animals such as Blue Tongue, Rift Valley Fever, West Nile Fever, Avian Influenza or other vector-borne diseases are believed to be both directly and indirectly influenced by climate change.

The seminar was attended by 130 participants with Head of the Agriculture Service Office of Bogor city representing the Mayor of Bogor city. Also attending the seminar were the Animal Health Director and Veterinary Public Health Director from the Ministry of Agriculture, Indonesia Veterinary Medical Association, Quarantine Agency and fellow veterinarians.

SCIENTIFIC DISCUSSION ON SWINE INFLUENZA

On Saturday, May 16, 2009, Center for Indonesian Veterinary Analytical Studies (CIVAS), IPB branch of the Indonesian Veterinary Student Association (IMAKAHI), and Student Executive Body (BEM) of the Faculty of Veterinary Medicine of Bogor Agricultural University (FKH-IPB) held a Scientific Discussion on Swine Influenza at the campus of the Faculty of Veterinary Medicine of Bogor Agricultural University in Darmaga. The discussion was attended by almost 200 participants; most of the participants were veterinary students from the faculty. Speakers in the discussion were Dr. Drh. Surachmi Setiyaningsih, MS from the Faculty of Veterinary Medicine of Bogor Agricultural University and Dr. Drh. Darminto from the Research Institute for Veterinary Science (Bbalitvet) Bogor.

The first speaker, Dr. Drh. Surachmi Setiyaningsih, MS, gave an overview on influenza viruses which are within the Orthomyxoviridae family. In her presentation, she explained the specific characteristic of this virus, which is antigenic variation. Antigenic variation could occur through antigenic shift or antigenic drift; this is what causes influenza viruses to change from time to time. In the history of swine influenza, several strains were found to be reassortants of swine influenza with human and/or avian influenza viruses. The latest influenza outbreak which started in April 2009 in Mexico is publicly named influenza A(H1N1) because it is transmitted from human to human. But, since genetic sequencing has shown the virus to be swine influenza, scientifically it is now called Swine-Origin Influenza A (H1N1) Virus (SoIV).

panitia diskusi ilmiah swine influenzaThe second speaker, Dr. Drh. Darminto, gave an overview on swine influenza, starting from the history, etiology, transmission, clinical signs, and diagnosis, to its treatment, prevention, and control. Since the outbreak in Mexico, the Indonesian government has implemented measures to prevent the disease from entering Indonesia. The measures taken were temporarily banning importation of swine and pork products from infected areas, screening the health of people coming into Indonesia at Airports and Harbors, increasing monitoring to detect possible illegal importation, socializing the hazards of swine influenza to the public, increasing the biosecurity of swine farms, and conducting surveillance of swine influenza in swine farms. Swine influenza surveillance is conducted by the Research Institute for Veterinary Science (Bbalitvet) and all Disease Investigation Centers (BBVet and BPPV) in Indonesia. Bbalitvet Bogor was assigned to conduct surveillance for DKI Jakarta, West Java and Banten provinces and had detected influenza A H5N1, H1N1 classic swine, and H1N1 seasonal human flu in samples collected. (Rie)

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