



N. 2 Mayo/May 2008

Centro de Documentación / Documentation Center

Objetivos/ Objectives

Identificar y atender las necesidades de información, adquisición, organización, almacenamiento, generación, uso y difusión de la información en salud pública veterinaria y proveer recursos bibliográficos técnicos-científicos al equipo de profesionales de la unidad y a los usuarios externos.

Identify and take care of the needs of information, acquisition, organization, storage, generation, use and diffusion of the information in veterinary public health and provide technical scientific bibliographical resources to the professional staff of the unit and to the users external.

Temas de interés general / Subjects of general interest

Competitividad: Cadenas Agroalimentarias y Territorios Rurales – Elementos Conceptuales

El concepto de cadena agroalimentaria permite establecer la contribución de todos los actores y procesos que intervienen en la transformación de un producto de origen agropecuario, desde su producción en la finca por parte de un agricultor, hasta que es comprado en la forma de otros productos por parte de los consumidores finales. La cadena agroalimentaria, como unidad de análisis y de formulación de políticas, es importante por al menos dos razones fundamentales. En primero lugar, porque permite entender y valorizar la contribución de la agricultura a la economía de la economía del país. Y en segundo lugar, porque el buen funcionamiento y la adecuada articulación entre los diferentes eslabones de las cadenas agroalimentarias son elementos fundamentales para incrementar la competitividad del sector agropecuario y de la economía de los países. Este trabajo compila y sistematiza conceptos y métodos aplicables a los diversos ámbitos de la cadena agroalimentaria.

Chavarría H, Rojas P, Sepúlveda S (Comp.)

IICA

Text in Spanish

<http://infoagro.net/shared/docs/a6/ACF7063.pdf>

Informaciones disponibles en formato electrónico / Information available in electronic format

Cadenas Agroalimentarias / Agro-Food Chains



Agricultores, consumidores y la medición institucional em las cadenas agroalimentarias globales en Centroamérica

Díaz Porras R, Pelupessy W

Revista Centroamericana de Ciencias Sociales 2004; 1 (1): 25-56

En este artículo comparamos algunas cadenas agroalimentarias centroamericanas a efectos de clarificar los desafíos de los pequeños productores para participar exitosamente en estas y contemplando las necesidades de los consumidores finales. Se utilizarán estos casos para mostrar las posibilidades analíticas que brinda el enfoque de cadenas globales de mercancías (CGM), y para discutir la orientación de políticas y estrategias necesarias para el diseño de nuevas políticas y estrategias empresariales de desarrollo.

En el resto del artículo presentamos sintéticamente el enfoque de las cadenas globales en la sección primera, considerando su vinculación con el estudio del desarrollo y su utilidad para considerar las consecuencias de los cambios en las preferencias de los consumidores para productos agrícolas. En la sección segunda se presenta una comparación de los casos de cadenas agroalimentarias, centroamericanas. La dimensión de los alcances de la formulación de políticas y estrategias en las cadenas se discute en la sección tercera, finalizando el artículo con algunas conclusiones.

Text in Spanish



Mapeo tecnológico de las cadenas agroalimentarias en el Cono Sur

PROCISUR/IICA, 1997

Text in Spanish

<http://www.procisor.org.uy/mapeo.pdf>

Fiebre Aftosa / Foot-and-Mouth Disease



Development and characterization of a bovine serum evaluation panel as a standard for immunoassays based on detection of antibodies against foot-and-mouth disease viral non-capsid proteins

Campos RD, Malirat V, Neitzert E, Grazioli S, Brocchi E, Sanchez C, Falcuk AJ, Ortiz S, Rebello MA, Bergmann IE
J Virol Methods 2008

The widespread perception of the effectiveness of applying tests based on the detection of antibodies against foot-and-mouth disease (FMD) viral non-capsid proteins (NCPs) to assess virus circulation irrespective of vaccination triggered the demand for international standards to evaluate the comparative performance of the upcoming assays against the OIE Index test developed at the Pan American Foot-and-Mouth Disease Center, PAHO/WHO. To this end, a panel was developed composed of 34 cattle sera from animals with an unambiguous exposed/infected status, covering serotypes O, A and C, obtained either under experimental conditions or from the field in regions with different epidemiological situations. Reference values in the Index test and their reproducibility in other laboratories, data on stability as well as results in four other commercial kits and one in house test were obtained. The characteristics of the panel which comprise adequate preparation following international guidelines, a broad range of antibody reactivity, proper stability and the ability to assess comparative diagnostic sensitivity, make it suitable as a reference standard to evaluate if tests equivalent to the OIE Index method are used in support of FMD control programs and by trading partners, and also whether they maintain their standards of diagnostic performance.

Text in English (article in press)



Quantitative risk assessment of foot-and-mouth disease introduction into Spain via importation of live animals

Martinez-López B, Perez AM, De la Torre A, Rodriguez JM
Prev Vet Med. 2008

Spain has been a foot-and-mouth disease (FMD)-free country since 1986. However, the FMD epidemics that recently affected several European Union (EU) member countries demonstrated that the continent is still at high risk for FMD virus (FMDV) introduction, and that the potential consequences of those epidemics are socially and financially devastating. This paper presents a quantitative assessment of the risk of FMDV introduction into Spain. Results suggest that provinces in north-eastern Spain are at higher risk for FMDV introduction, that an FMD epidemic in Spain is more likely to occur via the import of pigs than through the import of cattle, sheep, or goats, and that a sixfold increase in the proportion of premises that quarantine pigs prior to their introduction into the operation will reduce the probability of FMDV introduction via import of live pigs into Spain by 50%. Allocation of resources towards surveillance activities in regions and types of operations at high risk for FMDV introduction and into the development of policies to promote quarantine and other biosecurity activities in susceptible operations will decrease the probability of FMD introduction into the country and will strengthen the chances of success of the Spanish FMD prevention program.

Text in English (article in press)

Influenza Aviar /Avian Influenza



Real time bayesian estimation of the epidemic potential of emerging infectious diseases

Bettencourt LM, Ribeiro RM
PLoS ONE 2008 May; 3 (5): e2185

BACKGROUND: Fast changes in human demographics worldwide, coupled with increased mobility, and modified land uses make the threat of emerging infectious diseases increasingly important. Currently there is worldwide alert for H5N1 avian influenza becoming as transmissible in humans as seasonal influenza, and potentially causing a pandemic of unprecedented proportions. Here we show how epidemiological surveillance data for emerging infectious diseases can be interpreted in real time to assess changes in transmissibility with quantified uncertainty, and to perform running time predictions of new cases and guide logistics allocations. **METHODOLOGY/PRINCIPAL FINDINGS:** We develop an

extension of standard epidemiological models, appropriate for emerging infectious diseases, that describes the probabilistic progression of case numbers due to the concurrent effects of (incipient) human transmission and multiple introductions from a reservoir. The model is cast in terms of surveillance observables and immediately suggests a simple graphical estimation procedure for the effective reproductive number R (mean number of cases generated by an infectious individual) of standard epidemics. For emerging infectious diseases, which typically show large relative case number fluctuations over time, we develop a bayesian scheme for real time estimation of the probability distribution of the effective reproduction number and show how to use such inferences to formulate significance tests on future epidemiological observations. CONCLUSIONS/SIGNIFICANCE: Violations of these significance tests define statistical anomalies that may signal changes in the epidemiology of emerging diseases and should trigger further field investigation. We apply the methodology to case data from World Health Organization reports to place bounds on the current transmissibility of H5N1 influenza in humans and establish a statistical basis for monitoring its evolution in real time.

Text in English

<http://www.plosone.org/article/info:doi/10.1371/journal.pone.0002185>

Inocuidad de los Alimentos / Food Safety



Involving the public and stakeholders in the evaluation of food risks

Richard Shepherd

Trends Food Science & Technology 2008 May; 19 (5): 234-9

Approaches to food risk management which do not take account of the views of the public and other stakeholders have been shown to be deficient in a number of high profile cases. However, including non-expert views in the risk management process present a number of problems. Methods from risk communication, such as mental models, and work on participatory processes offer possibilities for overcoming some of these problems but there are still many challenges in developing these methods and in more fully integrating the insights from natural and social sciences into an overall framework for effective risk management.

Text in English



The potential for competitive and healthy food chains of benefit to the countryside

Traill WB, Arnoult MHP, Chambers SA, Deaville ER, Gordon MG, John P, Jones PJ, Kliem KE, Mortimer SR, Tiffin JR

Trends Food Science & Technology 2008 May; 19 (5): 248-54

Agricultural policy liberalisation, concern about unhealthy diets and growing recognition of the importance of sustainable land use have fostered interest in the development of competitive food chains based around products that are beneficial to the rural environment. We review the potential for foods with enhanced health attributes based on alternative varieties/breeds and production systems to traditional agriculture which has been predominantly motivated by yields. We concentrate on soft fruit, which is an important source of polyphenols, and grazing livestock systems that have the potential for improving fatty acid profiles in meat products and find there to be clear scientific potential, but limited research to date. Consumer research suggests considerable acceptance of such products and willingness to pay sufficient to cover additional production costs. Purchase of such foods could have major implications for agricultural land use and the rural environment. There is little research to date on specific healthier food products, but spatially explicit models are being developed to assess land use and environmental implications of changing demand and husbandry methods.

Text in English

Rabia /Rabies



Antigenic and genetic characterization of the first rabies virus isolated from the bat Eumops perotis in Brazil

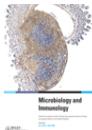
Castilho JG, Canello FM, Scheffer KC, Achkar SM, Carrieri ML, Kotait I

Rev Inst Med Trop Sao Paulo. 2008 Apr; 50 (2): 95-9

Although the main transmitters of rabies in Brazil are dogs and vampire bats, the role of other species such as insectivorous and frugivorous bats deserves special attention, as the rabies virus has been isolated from 36 bat species. This study describes the first isolation of the rabies virus from the insectivorous bat *Eumops perotis*. The infected animal was found in the city of Ribeirão Preto, São Paulo. The virus was identified by immunofluorescence antibody test (FAT) in central nervous system (CNS) samples, and the isolation was carried out in N2A cell culture and adult mice. The sample was

submitted to antigenic typing using a panel of monoclonal antibodies (CDC/Atlanta/USA). The DNA sequence of the nucleoprotein gene located between nucleotides 102 and 1385 was aligned with homologous sequences from GenBank using the CLUSTAL/W method, and the alignment was used to build a neighbor-joining distance-based phylogenetic tree with the K-2-P model. CNS was negative by FAT, and only one mouse died after inoculation with a suspension from the bat's CNS. Antigenic typing gave a result that was not compatible with the patterns defined by the panel. Phylogenetic analysis showed that the virus isolated segregated into the same cluster related to other viruses isolated from insectivorous bats belonging to genus Nyctinomops ssp. (98.8% nucleotide identity with each other).

Text in English



A simple and rapid immunochromatographic test kit for rabies diagnosis

Nishizono A, Khawplod P, Ahmed K, Goto K, Shiota S, Mifune K, Yasui T, Takayama K, Kobayashi Y, Mannen K, Tepsumethanon V, Mitmoonpitak C, Inoue S, Morimoto K
Microbiol Immunol. 2008; 52 (4): 243-9

In rabies endemic countries, funds and infrastructure are often insufficient to employ the approved gold standard for the definitive diagnosis of rabies: the direct fluorescent test. In the present study, two types (type 1 and 2) of an ICT kit were evaluated for detection of rabies. These were developed using monoclonal antibodies which recognize epitope II and III of the nucleoprotein of rabies virus. Both kits specifically detected all rabies virus strains and there was no cross reactivity with Lyssaviruses (Lagos, Mokola and Duvenhage), Rhabdovirus (VSV and Oita 296/1972) and other common canine-pathogenic viruses. In type 1, a single type of monoclonal antibody was used. It was capable of detecting recombinant nucleoprotein and showed sensitivity of 95.5% (42/44) and specificity of 88.9% (32/36) using brain samples from rabid dogs. In contrast, type 2 which was made of two different monoclonal antibodies had a lower sensitivity of 93.2% (41/44) and higher specificity of 100% (36/36). These ICT kits provide a simple and rapid method for rabies detection. They need neither cold chain for transportation nor complicated training for personnel. This diagnostic test is suitable for rabies screening, particularly in areas with a high prevalence of rabies and where the fluorescent antibody test is not available.

Text in English

Servicios Veterinarios – Seguridad Alimentaria / Veterinary Services - Food Safety

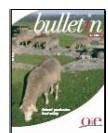


Papel de los Servicios Veterinarios en materia de seguridad sanitaria de los alimentos

Slorach AS
OIE Boletín 2008; (1): 3-8

La publicación de este artículo, escrito por el Dr. Stuart Alexander Slorach (ex Presidente de la Comisión del Codex Alimentarius y ex Director General Adjunto de la Administración Nacional de la Alimentación de Suecia), que preside actualmente el Grupo de Trabajo de la OIE sobre Seguridad Sanitaria de la Producción Animal destinada a la Alimentación, obedece a la voluntad de orientar a los Países y Territorios Miembros de la OIE sobre el papel y las competencias de los Servicios Veterinarios en materia de seguridad sanitaria de los alimentos, a fin de ayudarles a alcanzar los objetivos establecidos al respecto por las legislaciones nacionales y a cumplir los requisitos exigidos por los países importadores.

Text in Spanish



The role of Veterinary Services in food safety

Slorach AS
OIE Bulletin 2008; (1): 3-8

The purpose of this paper, which was written by Dr Stuart Alexander Slorach, Chairman of the OIE Working Group on Animal Production Food Safety, Former Chairperson of the Codex Alimentarius Commission and former Deputy Director-General of the National Food Administration in Sweden, is to provide guidance to OIE Member Countries and Territories in regard to the role and responsibilities of Veterinary Services in food safety, to assist them in meeting the food safety objectives laid down in national legislation and the requirements of importing countries.

Text in English



**Organización
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Centro Panamericano de Fiebre Aftosa



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Pan American Foot and Mouth Disease Center

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