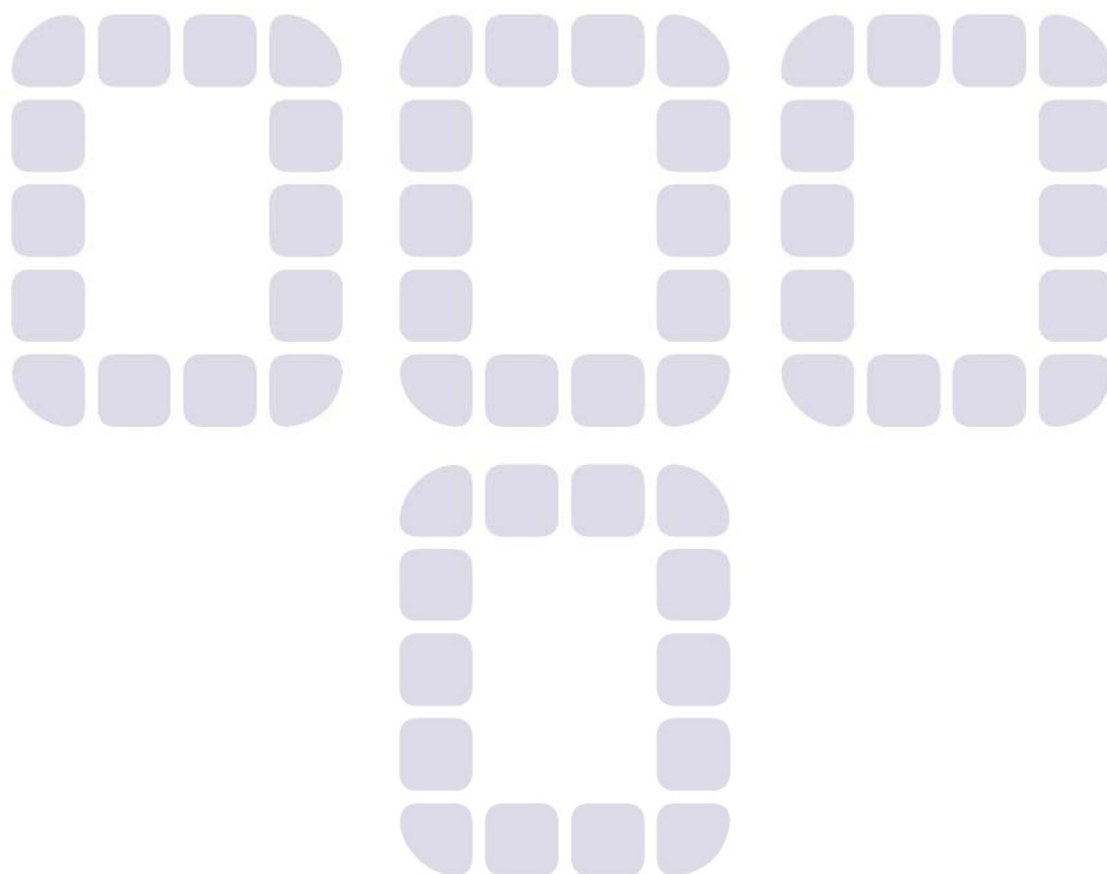


Petting Zoo Guidelines

February 2007

Environmental Health Directorate



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Introduction.

Petting zoos are primarily for the enjoyment and education of children. However, there are risks associated with petting zoos. These guidelines are primarily concerned with the risks of contracting zoonoses. Physical and other risks are not addressed by these guidelines.

Zoonoses are diseases that can be transmitted from animals to humans. Animal sources of zoonoses reported in Australia include cattle, sheep, horses, pigs, dogs, cats, chickens, turkeys, birds, kangaroos, rodents, reptiles (including turtles and tortoises), fish, crustaceans and bats.

Zoonoses can be transmitted through direct contact with animals, e.g. bites, scratches, or through indirect contact, e.g. with their faeces, urine, saliva, blood, respiratory secretions, birth products, carcasses or surfaces contaminated with these materials. Fleas, mosquitoes and ticks can also transmit zoonoses indirectly.

Animals may transmit harmful infections to humans without showing any signs of illness. (See Appendix 1.)

In recent years zoonoses associated with petting zoos, pets and reptiles have been reported in North America and in the United Kingdom. [See Appendix 6]

Aim of guidelines.

The aim of these guidelines is to provide health advice to petting zoo operators and visitors in Western Australia, to minimise the risk of persons contracting diseases from petting zoo animals.

The guidelines have been produced in consultation with petting zoo operators, relevant [nominate which Departments] government departments and local governments.

What is a 'petting zoo'?

For the purpose of these guidelines, 'petting zoo' is the term used to encompass events, open farms or premises where animals are made available for direct or indirect contact with members of the public. They include:

- Animal nurseries
- Zoos
- Friendship farms
- Wildlife parks
- Wildlife sanctuaries
- Nature education centres
- Travelling farms or animal troupes, including circuses
- Agricultural shows (and field days)
- Mini-farms and animal nurseries at schools
- Animal exhibits held at shopping centres

Disease Transmission routes.

The disease transmission routes relevant to petting zoos are:

Faecal-oral route - Animal faeces may be transmitted directly from soiled hands to mouth or indirectly by way of objects, surfaces, water or food contaminated with faeces. In petting zoos, transmission may occur after touching animals or their enclosures. An example of a disease transmitted this way is *Escherichia coli* (*E. coli*) infection.

Inhalation - Airborne droplets, dust or dried matter containing disease-causing organisms from an infected animal may be inhaled. Visitors should not be exposed to aerosols from birthing animals or from animals that have just been born. An example of a disease transmitted in this way is Q Fever infection.

Ingestion - Eating or drinking contaminated substances, for example, drinking contaminated, unpasteurised milk or eating animal feed. An example of a disease transmitted in this way is salmonellosis.

Skin or mucous membrane contact - Infections may be spread directly through animal bites or scratches or indirectly when broken skin or mucous membranes come in contact with contaminated animals or surfaces. An example of a disease transmitted in this way is ringworm.

Urine - Some infections are transmitted when contaminated urine is ingested or comes in contact with mucous membranes or wounds. An example of a disease transmitted in this way is leptospirosis.

Groups at increased risk.

People who are at an increased risk of contracting a zoonosis or who may suffer more severe symptoms include:

- Pregnant women
- Immunosuppressed persons including persons with diabetes, chronic illnesses (including liver or kidney disease), HIV, and persons who are having immunosuppressive therapy.
- Children under 5 years of age:
 - Children under 5 years of age should be closely supervised when in contact with animals and their enclosures to prevent the animals licking their faces or hands.
 - Infants under one year of age should not be allowed to touch animals or their enclosures.

People with animal allergies

People with allergies to some animals should be prepared to treat an allergic reaction.

What are the responsibilities of the petting zoo operator?

Negligence and Duty of Care - the operator is liable for injuries to persons who were reasonably likely to be harmed by the operator's actions when there was a perceivable and avoidable risk.

What are the responsibilities of Environmental Health Officers?

Environmental Health Officers should provide advice on request to operators, hirers (such as schools and shopping centre managers) and to the general public.

What practical steps can Petting Zoo operators take?

Operators should assume that all animals carry microorganisms that may be harmful to humans and should take appropriate precautions to prevent disease transmission, including:

- Practising and promoting thorough hand washing with soap and running water (or an alcohol based hand cleansing lotion) for at least 15 seconds after contact with animals or their enclosures.
- Positioning hand washing facilities so that visitors can easily wash their hands with soap and running water (or an alcohol based hand cleansing lotion) on exiting animal enclosures and before entering designated eating areas.
- Maintaining animals in an environment that maintains their health and well being. Faeces and other wastes, including birth products, should be regularly disposed of.
- Having separate animal contact and public eating areas.
- Providing only healthy animals for public display or contact. Animals that become ill should be promptly removed from display.
- Establishing an association with a vet to ensure that animals are clinically healthy.
- Vaccinating animals appropriately e.g. against leptospirosis.
- Reducing stress and overcrowding of animals to reduce the risk of disease.
- Not allowing direct viewing of birthing animals or contact with newborn animals.
- Providing only pasteurised milk or milk products for tasting.
- Providing adequate barriers that prevent visitors from touching animals that should not be touched.
- Providing a first aid kit and providing staff with first aid training.
- Placing hand washing signs in appropriate locations (see Appendix 2).

Operators should erect signs in obvious and prominent locations, such as the entrance and/or enclosures of the petting zoo to remind visitors to:

- Use good hygiene practices in the petting zoo environment (e.g.: Avoid touching your face until you have cleaned your hands).
- Eat or drink only in designated areas, not in animal contact areas. If a park? does not have separate eating and animal contact areas, hands should be washed with soap and running water (or an alcohol based hand cleansing lotion) before eating and after touching animals.
- Wash hands with soap and running water (or an alcohol based hand cleansing lotion) when leaving animal enclosures and before eating.

See Appendix 2 for suggested sign wording.

Operators should send pre-visit information to school groups before they attend the petting zoo. This provides the teacher with opportunities to enhance the educational experience of the petting zoo for children. The pre-visit information could include the types of animals and activities offered, facilities available and standard precautions to prevent disease transmission.

What should Petting Zoo operators advise visitors?

Hand washing is one of the most important hygiene practices for preventing the transmission of disease.

Operators should advise visitors of the following standard hygiene practices that can decrease the risk of disease transmission.

While visiting animals do not:

- touch your mouth or lick fingers
- kiss animals or press them to your face
- eat animal food
- eat while handling animals
- leave open wounds uncovered

Wash with soap and running water (or an alcohol based hand cleansing lotion) for at least 15 seconds after:

- touching animals, their enclosures or food containers.
- being licked, bitten, scratched or spat on by an animal
- contact with soil or faeces

Wash hands with soap and running water (or an alcohol based hand cleansing lotion) for at least 15 seconds before:

- eating, drinking or smoking
- Wash with soap and running water (or an alcohol based hand cleansing lotion)
- dummies or toys that have fallen on the ground or have come in contact with animals and before returning them to children

Operators should advise parents and guardians to supervise children to ensure proper hand washing.

What facilities should Petting Zoo operators provide?

Hand washing facilities

Adequate hand washing facilities should be provided by operators of petting zoos.

Adequate hand washing facilities require running water, soap (bar or pump), disposable paper towels or air dryers and waste containers; or an alcohol based hand cleansing lotion.

There should be sufficient hand washing facilities to accommodate all visitors.

Hand washing facilities should be accessible to visitors leaving animal enclosures and to those eating on the premises.

Ensure small children can reach and use the hand washing facilities.

Signs directing visitors to hand washing facilities should be obvious and prominently placed at locations before they enter and leave animal enclosures and before they enter designated eating areas.

Permanent and temporary petting zoos

Petting zoos may fall into two groups: those that are permanent and those that are temporary (e.g. mobile).

Permanent petting zoos

Permanent premises should provide adequate hand washing facilities as described above.

Temporary petting zoos

Temporary or mobile petting zoos should notify the local government Environmental Health Officer of any impending significant visit to that local government's district. (Not children's birthday parties or similar private events).

Temporary or mobile petting zoos should consider the provision of hand-washing facilities and who will be providing them:

- Negotiate placement of the petting zoo as close as practical to permanent hand washing facilities, if present, and away from places where food is sold.
- In shopping centres, operators are encouraged to organise hand-washing facilities with the management of the centre and with an Environmental Health Officer from the local government.
- Erect prominent signage directing visitors on where and when to wash their hands.
- If reticulated water is not available, an acceptable alternative is to provide an alcohol-based hand cleansing lotion.
- Contact the local council Environmental Health Officer to discuss options for approved waste control systems including, the collection, temporary storage and disposal of animal wastes, such as faeces, urine and birthing products.

Emergency situations (eg accidental contact with faeces) may be temporarily addressed with antibacterial wipes (70% isopropyl alcohol). Baby or moist wipes are not suitable. Directions to hand washing facilities are required for visitors whether wipes are used or not.

Eating Areas

Eating areas must be kept separate from animal contact areas and animals must be kept out of eating areas. Place signs in the designated eating areas to remind visitors to wash their hands before eating and not to feed the animals while eating.

After the visit

If a visitor becomes ill (e.g. diarrhoea, nausea, vomiting) after visiting a petting zoo, they should be advised to visit their doctor and explain that they have had recent contact with animals.

What if the operator wants to provide extra services?

Unpasteurised milk

Unpasteurised milk is considered by the Department of Health to be unsafe for human consumption because milk may contain pathogenic microorganisms. Pasteurisation and boiling destroys these organisms, making the milk safe for drinking. Unpasteurised or unboiled milk or milk products should not be offered for 'tasting'.

Animal food

Animal foods are not manufactured for human consumption. They may not meet the high safety standards of human food, and should not be eaten by members of the public because of contamination risks. Operators should instruct visitors not to sample food provided for feeding the animals.

Animal Birthing

Operators should ensure that visitors are not exposed to aerosols from birthing animals or from animals that have just been born. If animal births occur, operators should ensure the visitors have absolutely no contact with the animals or the animal's environment.

Bats

Bats should not be provided in petting zoos. See Appendix 1.

Animal Welfare and Disease Considerations

INTRODUCTION

- It is acknowledged that there are social and educational benefits from adults and children in particular, having the opportunity to see, interact and handle some animals.
- It is also acknowledged that showing animals for the benefit of the public and allowing some animals to be touched and handled by the public may also be stressful for the animals involved.
- Wherever possible, direct contact between people and animals should be supervised and properly controlled.
- Exhibitions should have appropriate disease prevention and control strategies in place for all species of animals exhibited.
- Owners, managers and operators should be aware that their animals may be carrying infectious diseases. Operators should develop a security protocol to ensure that neither they, nor their animals represent a health risk to other (collections or populations) of animals.

SELECTION OF ANIMALS FOR EXHIBITIONS

- All exhibited animals should be fit and healthy.
- Only animals that are conditioned to handling should be provided for the public to handle.
- Wherever animals are to be used for handling by the public or for exhibition, then they should be selected from a pool of animals. If different animals are used for consecutive exhibitions, then the period of stressful interaction for individual animals should be reduced.
- A protocol should be in place to ensure that animal care can be provided in emergencies, with veterinary advice readily available should any animals get sick or injured.

HOUSING EXHIBITED ANIMALS

- Care must be taken to provide appropriate housing for each class of animals. This includes temporary housing, caging during transportation and permanent housing.
- For some classes of animals, model codes of practice for the welfare of animals have been developed nationally and endorsed by the Animal Welfare Committee (AWC). The AWC is a committee reporting to the Primary Industries Ministerial Council (PIMC).
 - The AWC has developed a number of codes relating to housing, husbandry and transportation for a number of domesticated and farmed species of animals. Details of the Codes can be obtained from the following Internet site:
<http://www.affa.gov.au/content/output.cfm?ObjectID=D2C48F86-BA1A-11A1-A2200060B0A00816>
- The recommendations in relevant codes on animal husbandry and transportation should be followed.

DISEASE CONTROL STRATEGIES

- Operators should develop protocols that minimise the risk of the spread of disease. This applies to both animal diseases and zoonotic diseases.

- Direct contact between people and animals should be minimised to reduce the transfer of saliva, tears, urine, faeces or fur from animals to people. Depending on the species, these body components may potentially carry disease.

For example:

Saliva	Australian Bat Lyssavirus
Tears	Chlamydia infection
Urine	leptospirosis
Faeces	hydatid infection, Q-Fever, toxoplasmosis, E.coli
Skin	ringworm
Fur	fleas, lice.

- The needs of young animals and unweaned animals must be acknowledged and catered for. Young animals have special dietary needs and are less able to cope with changes in ambient temperature.
- The dietary needs for some species can best be supplied by using commercially available diets.

HANDLING HUMAN AND ANIMAL INTERACTIONS

- Direct handling of animals by visitors must always be supervised.
- People should not be allowed into cages or pens to catch or handle animals themselves. Animals of all types should be caught and actually handled by the exhibitor. The exhibitor should then supervise the interaction between the public and the captured animal. An exception to this rule would be when the exhibitor has given instruction to the visitor on how to pick up an animal and closely supervises the procedure.

RETIREMENT OF ANIMALS

- Consideration must be given to the retirement of the animals at the end of the exhibition period.
- A strategy may be required for animals that have been adapted to or reared in captivity, to enable them to be introduced to a different environment at the end of the exhibition period. There may be difficulties in successfully assimilating exhibited animals into a general population of animals and these difficulties must be recognised and dealt with.

Appendix 1

Index of zoonoses

Table 1

Zoonotic infections*				
*Many of the gastrointestinal infections listed are most commonly contracted through eating contaminated food or through person-person spread. This table is limited to sources and routes applicable to these guidelines.				
Disease	Main animal reservoir	Route of transmission	Clinical effects	Prevention
Gastrointestinal	Avoid hand-mouth contact when in animal environments.			
Campylobacter infection	Cattle and sheep Poultry, other birds Wildlife Pigs Rodents Puppies and kittens	Faecal-oral route.	Diarrhoea (loose bowel movements) Mild fever Stomach cramps Nausea and vomiting in some cases	Proper hand washing and personal hygiene.
Cryptosporidiosis	Cattle and other domestic animals, especially calves and lambs	Faecal-oral route.	Watery diarrhoea Stomach cramps May include fever, vomiting and anorexia.	Proper hand washing and personal hygiene.
Salmonellosis	Reptiles Cattle and sheep Horses Pigs Poultry	Faecal-oral route	Diarrhoea Fever Stomach cramps Nausea and vomiting	Proper hand washing and personal hygiene.
Shiga toxin producing <i>E. coli</i>	Cattle and sheep	Faecal-oral route.	Diarrhoea, possibly with blood. In severe cases, kidney failure and brain damage.	Proper hand washing and personal hygiene.
Other				
Hydatids	Dogs and foxes	Faecal-oral route	Slowly enlarging fluid-filled cysts, mainly in the liver or lungs, but can appear elsewhere. No symptoms unless they grow very big or burst.	Do not feed dogs raw offal. Worm dogs regularly Avoid touching dog faeces. Proper hand washing and personal hygiene.
Leptospirosis	Cattle, including dairy herds Rats Pigs	Direct or indirect contact of mucous membrane or skin with urine from infected animal.	Sudden onset of fever Headache Chills Muscle aches Conjunctivitis Sometimes a rash.	Protective clothing. Proper hand washing and hygiene. Vaccination of animals.
Lyssavirus	Bats	Animal bites and scratches	Encephalitis Death	Human vaccination. Avoid contact with bats and their environment.

Disease	Main animal reservoir	Route of transmission	Clinical effects	Prevention
Psittacosis	Birds	Inhaling dried droppings, secretions and dust from feathers of infected birds.	Fever Headache Rash Myalgia Chills Respiratory disease	Proper hand washing and personal hygiene. Avoid disturbing birds in their enclosures, as this produces dust. Clean cages. Consider ways to reduce stress on birds
Q Fever	Cattle, Sheep and goats Kangaroos	Inhaling droplets from infected animal birth products. Inhaling dust from wool, hides or straw containing the organism. Consuming unpasteurised milk or milk products.	Abrupt onset of fever Chills Profuse sweating Severe headache Fatigue Nausea.	Human vaccination. Avoid inhaling contaminated droplets from animal birth products, urine, milk and faeces. Avoid inhaling dust from contaminated materials such as clothing, straw, wool or hides.
Toxocariasis	Dogs and cats, especially puppies	Faecal-oral route	Flu-like illness Skin infection Blindness	Worm animals. Proper hand washing and personal hygiene.
Toxoplasmosis	Cats	Faecal-oral route	Flu-like illness Blindness Foetal death in pregnant women	Proper hand washing and personal hygiene. Avoid touching cat faeces or anything contaminated by cat faeces.

Appendix 2. Signage

Location of signs

Consider the movement of visitors and erect signage with public health advice in locations for maximum exposure, such as:

- Entrance of premises or at the ticket office
- Entrances and exits of animal contact areas
- Entrances to designated eating areas

Elements of signage

Public health signage should include the following elements:

- Wash hands thoroughly after touching or visiting animals
- Wash hands thoroughly before eating, drinking or smoking
- Eat or drink in designated areas only
- Handwashing facilities are located ... (to be added by operator)

Public health signage could include the following elements:

- Enjoy your visit.
- This advice is in the interest of your health and that of your family.

Directional signs, optional

Handwashing
This Way
←

Handwashing
This Way
→

Appendix 3. Handwashing.

Handwashing is arguably the single most important means of preventing the spread of infection from animal to person.

How to wash hands:

- Use soap and running water, warm to hot water is best.
- Wet hands thoroughly and lather with soap.
- Rub hands vigorously together for at least 15 seconds as you wash them.
- Pay attention to back of hands, wrists, between fingers and under fingernails.
- Rinse hands well under running water.
- Dry hands with a disposable paper towel or a clean towel. To minimise chapping (reddening, roughening or cracking of skin) of hands, pat dry rather than rub. Electric hand dryers are also less traumatic to skin. If cloth towels are used, select a fresh towel each time or if a roller towel is used, select a fresh portion of towel.
- Turn off the tap with the used paper towel, if applicable.

HAND SOAP

- A bar of soap or liquid soap may be used for hand washing.

NO RUNNING WATER?

- In the absence of running water, an alcohol hand cleansing lotion is an acceptable alternative.
- Emergency situations may be temporarily addressed with antibacterial wipes (70% Isopropyl alcohol); baby or moist wipes are not suitable.

Handwashing is an effective way of reducing the transmission of communicable disease. Many of our lifelong habits, including handwashing, are learned as children. Both parents and teachers have important roles in educating children to clean their hands by proper handwashing.

Appendix 4. Contacts

For information and advice on zoonotic disease, contact:

Your veterinarian,

Your Environmental Health Officer, at your local government

or

The Environmental Health Directorate (Department of Health)

Tel: 9388 4999

Internet: <http://www.public.health.wa.gov.au/>

The Communicable Disease Control Directorate (Department of Health)

Tel: 9388 4999

Fax: 9388 4877

Internet: <http://www.public.health.wa.gov.au/>

For information and advice on animal health contact:

The Chief Veterinary Officer

Agriculture Western Australia

Baron-Hay Court

SOUTH PERTH WA 6151

Tel: 08-9368 3333

Fax: 08-9368 1205

E-mail: enquiries@agric.wa.gov.au

Internet: <http://www.agric.wa.gov.au/>

Appendix 5.

The International Society for Infectious Diseases (ISID) was created to bring together all individuals interested in infectious diseases, and provides ProMED mail, which is a global electronic reporting system for outbreaks of emerging infectious diseases and toxins, open to all sources.

ProMED has a free subscription service.

<http://www.promedmail.org/pls/otn/f?p=2400:1000:>

Suggested headings for searches relevant to these guidelines on the ProMED site:

- Salmonellosis
- Petting zoo
- E. coli
- School children

Appendix 6. Web sites

Source/Date Accessed	Title
http://www.cda.gov.au/pubs/other/bat_lyssa.htm accessed 13 February 2007	Australian Bat Lyssavirus Guidelines
http://www.dh.sa.gov.au/pehs/Youve-got-what/hand-washing.htm , accessed 13 February 2007	Handwashing
http://www.hse.gov.uk/pubns/ais2.pdf accessed 13 February 2007	Common zoonoses in agriculture
http://www.health.qld.gov.au/phs/sphun/4751doc.pdf accessed 30 January 2001	Avoiding Ill Health when petting Farm Animals Factsheet Factsheet for the teachers and childcare personnel planning a trip to an animal nursery or petting zoo
http://healthunit.com/index.asp?mode=article&lang=english&articleID=10173 accessed 13 February 2007	An <i>E.coli</i> O157:H7 Outbreak Associated with an Animal Exhibit
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5015a5.htm accessed 13 February 2007	Outbreaks of <i>Escherichia coli</i> O157:H7 Infections Among Children Associated With Farm Visits – Pennsylvania and Washington, 2000 (April 20, 2001/50 (15); 293-7)
http://www.guardianunlimited.co.uk/Archive/Article/0,4273,4121936,00.html accessed 13 February 2007	\$2.6m award for child disabled by farm bacteria, January 23 2001
http://www.hse.gov.uk/pubns/ais23.pdf Accessed 13 February 2007	Health and Safety Executive 1999, Avoiding ill health at open farms – Advice to farmers (with teachers' supplement) (Agriculture Information Sheet No. 23 revised), Health and Safety Executive, United Kingdom.

Appendix 7. Bibliography

1. Centres for Disease Control and Prevention, US Department of Health and Human Services, 'Reptile-Associated Salmonellosis - Selected States, 1996-1998', *Morbidity and Mortality Weekly Report*, 1999 November 12; Vol. 48, no. 44.
2. Dawson A, Griffin R, Fleetwood A and Barrett NJ, 'Farm visits and zoonoses', *Communicable Disease Report*, 1995 May 26, vol.5, review no. 6: R81-R86.
3. 'E.coli on the Farm', *JAMA*, 1999 April 14; vol. 281, no.14.
4. Farm Safety Association, 'Safety with Farm Animals', Fact Sheet No. F-008, 1985 September.
5. Friedman CR, Torigian C, Shillam PJ, Hoffman RE, Heltzel D, Beebe JL, Malcolm G, De Witt WE, Hutwagner L, Griffin PM 1998, 'An outbreak of salmonellosis among children attending a reptile exhibit at a zoo', *The Journal of Pediatrics*, vol. 132, no. 5.
6. 'Information on Zoonotic Bat Viruses For Veterinary Practitioners', Endorsed by the Commonwealth Department of Agriculture Fisheries and Forestry Australia, the Australian Veterinary Association, and the Communicable Diseases Network Australia New Zealand, September 1999.
7. Milne LM, Plom A, Strudley I, Pritchard GC, Crooks R, Hall M, Duckworth G, Seng C, Susman MD, Kearney J, Wiggins RJ, Moulds M, Cheasty T & Willshaw GA, 'Escherichia coli O157 incident associated with a farm open to members of the public', *Communicable Diseases and Public Health*, 1999; vol. 2, no. 1.
8. Nicholls J, 'Changing Patterns of zoonoses of childhood', *SEARCH*, 1994 November 18; Issue 2:17.
9. 'Outbreak of Vero cytotoxin producing *Escherichia coli* O157 infection in Dorset', *Communicable Disease Report CDR Weekly*. 1998 May 22; vol. 8, no. 21.
10. Peterson D and Carpenter L, 'Back to Basics: Low - Cost Disease Prevention at Fairs and Festivals', *Environmental Health*. 1999 November; 28, 32.
11. Rosenman K 'Zoonoses - Animals Can Make You Sick', Michigan University Extension.
12. Sayers GM, Dillon MC, Connolly E, Thornton L, Hyland E, Loughman E, O'Mahony MA & Butler KM, 'Cryptosporidiosis in children who visited an open farm', *Communicable Disease Report*. 1996 September 13; Vol. 6, No. 10.
13. Shukla R, Slack R, George A, Cheasty T, Rowe B & Scutter J, 'Escherichia coli O175 infection associated with a farm visitor centre', *Communicable Disease Report*. 1995 May 26; Vol. 5, Rev. No. 6.

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