The events of September 11, 2001 identified a need to enhance the security of the United States food system as a whole. Consequently on June 12, 2002, President Bush signed into law the Bioterrorism Act of 2002, which is under the jurisdiction of the Food and Drug Administration (FDA). The Act was designed to improve the ability of the United States to prevent, prepare for, and respond to bioterrorism and other public health emergencies. The Act will impact on not only the food industry in the United States itself, but also those countries which ship food, feed, etc. ... sector, including growers who ship to or through the U.S.  It is estimated 400,000 companies, worldwide, will be affected.

The Act covers all agriculture or food materials under the jurisdiction of the FDA. This extensive list includes: "food or drink for man or other animals, chewing gum and articles used for components of any such article" and some examples are: fruits, vegetables, fish, dairy products, eggs, raw agricultural commodities used as food or components of food, animal feed (including pet food), food and feed ingredients, additives, dietary supplements and ingredients, beverages, bottled water, live food animals, bakery goods, snack foods, candy, and canned foods. Foods under the exclusive jurisdiction of the United States Department of Agriculture (through their Federal Meat Inspection; Poultry Products Inspection and Egg Products Inspection Acts) are exempt.

At present the FDA is developing four regulations under the Bioterrorism Act. "Registration" and "Prior Notice for Shipments" were publicly introduced for consultation in January of 2003, and the FDA is in the process of finalizing the regulations. "Registration" requires companies to register their operations with the FDA, whereas "Prior Notice" outlines the timing and detail which is to be supplied to the FDA before any shipments enter the U.S. In early May 2003, the FDA unveiled drafts of the final two regulations dealing with "Records" and "Administrative Detention". The "Records" regulations specifies the records that must be kept by all agri-food stakeholders in case the FDA wishes to investigate a danger relating to product entering the U.S. "Administrative Detention" empowers the FDA to detain any suspected product. FDA will be accepting comments on the latter two proposed regulations until early July 2003.

References:

Transmission of PRRS virus

By: Mike Yacentiuk, P.Ag.
Manitoba Agriculture and Food

The Porcine Reproductive and Respiratory virus (PRRSV), if introduced to a susceptible swine herd, can decrease performance and reduce economic returns.

The virus enters swine herds mainly through vectors such as infected pigs and semen, however other modes of establishment are also possible. To assist producers establish adequate bio-security protocols Dr. Scott Dee, University of Minnesota, has conducted research on the spread of this virus by means other than via live animals.

A summary of Dr. Dee’s research conclusions:
1) Contaminated needles can transmit PRRSV to naive pigs following the vaccination of infected pigs. Producers should be strongly encouraged to change needles between sows, litters and pens of growing pigs.
2) Contaminated coveralls, boots and hands of personnel can transmit PRRSV to naive pigs following the direct contact with infected pigs. Producers and practitioners should consider changing coveralls and boots and washing hands between production stages that differ in PRRSV status on one-site farms and between buildings and sites within segregated systems.
3) While PRRSV may be transmitted over short distances with infected animal air space, aerosol transmission of the PRRSV between farms seems to be rare.
4) An individual housefly can harbor sufficient PRRSV in its intestinal tract and could mechanically transmit the virus to susceptible pigs.
5) Mosquitoes can also serve as mechanical vectors of PRRSV; however, they are not likely to serve as biological vectors.

Some general considerations for developing bio-security protocols are:
1) Live animals and semen pose the greatest risk of disease introduction.
   - Consider permanent closure of the herd and the establishment of an in-house genetic program.
   - Quarantine and test all incoming breeding stock.
   - Ensure all semen entering the farm has been tested.
2) Policies such as barn entry area cleanliness (placing footwear on a slotted mat to reduce water and debris contamination of the floor), shower-in/shower-out, providing visitors and workers barn clothing/footwear and hand-washing between production stages should be part of a sound biosecurity protocol. The elimination of sliding windows for the receipt of goods should also be implemented. Disease causing organisms can be transferred from a contaminated package via the hands to livestock.
3) Unless footbaths are properly maintained and boots are washed of organic material before immersion their efficacy as a biosecurity measure is questionable.
4) Vehicles involved in animal transport should be thoroughly cleaned, disinfected and allowed to dry between livestock loads. Floor mats and the soles of boots should also be cleaned, disinfected and allowed to dry. Wear disposable boots in the truck wash.
5) Insects, rodents and possibly birds can serve as vectors for the introduction of disease causing organisms. Rodent-proof swine rearing facilities. Control the entry of insects into the barn.

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Hulless Oats In Pig Rations

By: John Maltman
Manitoba Agriculture and Food

Pig producers are in a constant search for ingredients which maintain or reduce their cost of production without hurting performance. Hulless oats may provide us with an opportunity to accomplish this goal. This cereal has been around for many years and has been researched since the early eighties. The agronomics of this crop present well.

Recent research in Canada and worldwide has examined the potential to replace corn and soybean meal with hulless oats in diets for all categories of pigs. In these studies a corn/soybean meal or wheat/soybean meal diet is fed as a control and then hulless oats is added incrementally to replace the base grain until 100% replacement occurs, while keeping nutrient levels the same across diets.

Brand and van der Merwe (1996) reported no differences between corn/soy or hulless oat/soy diets for weanling or grower/finisher pigs as measured by average daily gain, feed conversion or backfat thickness. A nonsignificant trend was seen to slightly reduced daily intake and average daily gain (ADG) with each added increment of hulless oats going from 30% to 60% to 100%.

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Nutrient levels are very encouraging. Hulless oats have lysine levels ranging from 0.55% to 0.70%, which is higher than the average dehulled oat groat 0.45% to 0.50%. Digestible energy levels for hulless oats are higher than corn and wheat due to its high oil content of 6-9%.

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