The Impact of Importing African Swine Fever

Fiji Pig Producers Association 2018

1 INTRODUCTION

The purpose of this paper is to seek endorsement to ensure:-

1. That Biosecurity review the risks of importing pork from Europe in light of the attached paper by Dr. Eric Neumann
2. That the economic factors of allowing subsidised imports contained in this report are taken into consideration.

2 SUMMARY

A report was commissioned by Fiji Pig Producers Association (FPPA), an Association formed under the Fiji Crop and Livestock Council from Dr. Eric Neumann in New Zealand. The objective of the report is to describe the potential risks of disease introduction into the Fijian pig industry through the direct importation of pork from countries in the European Union.

The FPPA expects the volume of imported pork arriving from New Zealand (either domestic-raised or re-exported from countries exporting to New Zealand) or Australia is likely to increase in the future. In addition, the importation of pork directly from countries of the European Union is currently being considered. This situation creates the potential for increased risk of disease introduction into Fiji through the importation of untreated pork.

New Zealand has significantly changed its position on the risk of importing disease from:- preventing the introduction of disease to:- **knowingly accepting pathogens will be released into the country with the hope and expectation that consumers of the risk will undertake to manage whatever residual risk is not managed by the regulatory officials[1].**

New Zealand has a modern pig production system with minimal swill feeding, the most likely mechanism of transmitting the disease. Over 60% of Fiji's industry is subsistence based using uncooked waste products as a vital feed source. The likelihood of transmission in Fiji is therefore much greater and the ability of our under resourced regulatory authority to control an outbreak minimal.

Even with all the sophistication available to the NZ authorities, they were not able to prevent the introduction of Mycoplasma Bovis which is now costing millions of dollars to attempt to control. Fiji does not have these resources available therefore no chance should be allowed to import the disease.

The Fiji pig industry produces up to 80% of the national requirement for pork and pork products. Fiji pork is of measurable international quality and competitively priced against imports from Australian grown pork or New Zealand grown pork. The balance of the local demand is normally met by imports of Australian meat for processing and value adding in Fiji by our processors (butchers), or by the direct import of processed products from Australian grown pigs.

Last year imports from New Zealand made of New Zealand Pork were also allowed into Fiji. The Fiji pork industry accepts this. However this is now extended to allow imports of pork products from sources outside New Zealand with a lower health status that have passed through New Zealand Biosecurity. We believe this results in a direct disease threat to the Fiji industry.

Fiji Bio Security requires that any pork imported to Fiji from Australia is derived from Australian grown pigs with a high health status. This is done for disease reasons as pork from other countries can pose a disease risk to Fiji's industry (Aujeskies and Porcine Reproductive and Respiratory Syndrome, African Swine Fever, Classical Swine Fever). This requirement was not placed on imports from NZ.

Since early this year imports of processed products have increased significantly to a point where the local processors (butchers) have stopped or reduced buying from local farmers, and all of those involved in farming pigs have experienced huge decreases in sales. Already smaller farmers cannot find market for their pigs and larger farms are scaling back as imports increase.

Fiji's butchers can process the total market demand by importing meat from Australia and New Zealand. This method retains jobs and foreign exchange in the country.

[1] Eric Neuman

3 REPORT FROM DR. ERIC NEUMANN

This short report draws heavily on a detailed review of the issues conducted by Dr. Eric Neumann. The executive summary and key points are included below.

1. Fiji imports pork from Australia and New Zealand. Both NZ origin and re-export product can be exported to Fiji.
2. Based on a willingness to allow substantial (up to 10 kg) import of various treated and untreated pork for personal use from Australia and New Zealand, it appears Fiji has reliance and confidence in the risk assessment capabilities of the governments of these two countries.
3. Fiji, as a member of the World Trade Organisation, is obliged to allow free trade in goods such as pork unless there is demonstrable biosecurity-based evidence why the trade would present an unacceptable risk of disease introduction into the country. Most countries generate evidence by doing surveillance for animal diseases in their country concurrent with formal assessment of potential hazards (pathogens) and risk assessment related to potential imports. Fiji has minimal capacity in both areas with respect to their pig industry and pork trade.
4. It appears that both New Zealand and Australia have equal or better health status (with regard to pig diseases) than Fiji, suggesting that export of both untreated and treated pork originating from those countries could safely occur.
5. Australia has quite restrictive pork import rules and does not allow fresh, untreated pork into their country though heat and/or pH treated pork is imported. New Zealand **does** allow fresh pork into their country from the EU, North America, and the Mexican State of Sonora without heat or pH treatment, if imported under their novel 'consumer-ready' preparation standard.
6. New Zealand's Ministry for Primary Industries (MPI) accepts that there is a **non-negligible** likelihood that chilled or frozen pig meat from a country with endemic PRRS will harbour infectious PRRS (porcine reproductive and respiratory syndrome) virus when imported into New Zealand under the consumer ready standard. As Fiji chooses to allow NZ to re-export fresh pork from the EU, North America, and Sonora Mexico, it is also choosing to accept this risk.
7. Re-exported product in NZ that has **originated from the EU carries particular risk** with regard to three agents: African swine fever (ASF), PRRS, and classical swine fever (CSF) as all three are known to exist in at least some EU countries. All three diseases can be transmitted to pigs through consumption of pork harvested from infected pigs and all are significant clinical diseases in their own right. ASF and PRRS are particularly challenging as efficacious vaccines are not available for their control making them exceedingly difficult to eradicate once established in a country.
8. ASF, PRRS, and CSF viruses will remain infectious in meat that is frozen and held below -10C for many months, certainly well beyond reasonable storage lengths for pork in most situations.
9. The evidence suggests that fresh and processed pork can be safely imported into Fiji from either Australia or New Zealand, if sourced from their domestic pig supply, given their high pig health status relative to Fiji. This seems to be the most biosecure approach to meeting demand for pork in Fiji that is not available through the local supply.
10. Pork in NZ that has been imported from a third-country under the 'consumer-ready cut' standard, then re-exported to Fiji carries additional risk as it will not have undergone any temperature or pH treatment that could be relied upon to inactivate PRRS virus or any other virus that might be

present. The consumer-ready cut standard requires removal of some higher risk tissue such as major lymph nodes and in theory may result in lower levels of trim waste (thus reducing the likelihood of exposure to Fijian pigs via waste food feeding).

11. Fijian import of third-country sourced, treated pork (pH or heat) from NZ carries minimal risk. The standards for pH and heat treatment found in the NZ Import Health Standard (IHS) for pork from EU, North America, and the Mexican State of Sonora are very likely to be effective in inactivating OIE listed pig pathogens; the standards are generally consistent with those found in other countries.
12. Direct import of fresh pork from the EU and other countries having a pig disease status that is lower than Fiji is not advised in the absence of a Fijian initiated risk assessment of the activity, and without robust biosecurity and inspection services to assess compliance with any standards developed that enable direct imports from the EU.
13. Fiji, using a combined initiative of the public sector and the pork industry, should be vigilant in staying aware of the changing pig health status in EU countries. They should also stay abreast of changes to the OIE Terrestrial Animal Health Code as changes in the Code are very likely to be automatically incorporated into NZ IHSs in the future under NZ's new 'generic' IHS framework. A generic IHS for pork is likely to be released later this year.
14. Fiji should be aware that products under all the IHS's do introduce risk into the NZ landscape. In particular, if any of those products are either diverted to livestock feed or somehow 'escape' the mandated risk management processes that risk could extend to Fiji.

4 STATUS OF KEY DISEASES AND TRANSMISSION

Though substantial additional work has been done with PRRS virus that confirms it can be transmitted to pigs, presumably across international borders through consumption of fresh pork, the topic remains contentious amongst scientists and policy makers. While there may be a very low likelihood that imported pig meat derived from an individual carcass will be infected, large import volumes make it quite likely that at least some pork imported from endemically infected countries will contain infectious PRRS virus. In its own risk assessment, MPI concluded that 'there is a non-negligible likelihood that chilled or frozen pig meat from a country with endemic PRRS will harbour infectious PRRS virus when imported into New Zealand' (Anonymous 2006).

Notably in the New Zealand risk assessment, the government accepted that PRRS virus would knowingly be introduced into the country under the current import health standard for pork and reliance would need to be placed on good compliance with waste food feeding regulations to ensure PRRS virus would not reach domestic pigs (particularly on backyard farms). **This position represents an important divergence from the traditional import risk management strategies that have the desired objective of preventing any introduction of a pathogen (though accepting any risk mitigation strategy is imperfect) to one that knowingly accepts pathogen will be released into the country with the hope and expectation that consumers of the risk will undertake to manage whatever residual risk is not managed by the regulatory officials.**

Much of Fiji's pig feeding systems are based on untreated waste food systems increasing the risk in Fiji.

In addition to PRRS, a large outbreak of another OIE listed disease, African swine fever (ASF), is currently occurring in Europe and Central Asia. African swine fever virus was introduced into the Caucuses in 2007 and has since spread across Central Asia and to seven countries of the European Union, for a total of 14 countries. Recent reviews of the history of the disease and the current European outbreak are widely available and will not be summarized here (Costard et al 2009; Sanchez-Vizcaino et al 2013; Sanchez-Cordon et al 2018). While most reports of ASF occurrences in the European region are in feral pigs or on small-holder properties, incursions into commercial properties continue to occur; according to official reports lodged with OIE, the source of infection for most of these occurrences is inconclusive. However, the possibility of introduction of ASF virus in these outbreaks through feeding of waste food can generally not be eliminated leaving countries such as NZ that import from the EU at increased risk of becoming infected.

Over half of Fiji's pork industry is made up of small domestic producers with bush pig breed types.

Despite the high level of concern across the EU and specifically those countries with large commercial industries dependent on pork exports, the spread of ASF across the region appears inevitable.

5 ABILITY TO CONTROL A DISEASE OUTBREAK

We note the recent outbreak of Mycoplasma bovis in NZ. This disease should not be in New Zealand and is now the cause of a massive culling program.

"We do not know how or when Mycoplasma bovis entered New Zealand although significant efforts are being made to find out."[2] (New Zealand Government Advisory)

If there was an outbreak of one of the identified diseases in Fiji, as a result of the increased risk posed by imports, it is unlikely Fiji would be able to control the disease. Even with all the biosecurity protection and the scale funding and sophistication of a first world biosecurity system, New Zealand has not been able to control the outbreak of this Mycoplasma Bovis and at huge cost to the country and producers.

The likely scenario for the introduction of disease in Fiji is outlined bel\low.

- more imports from disease(+) countries =
- higher risk of disease agents entering (legally) =
- a higher risk this product will end up swill fed or rubbish tip/feral exposure =

[2] http://mpi.govt.nz/dmsdocument/20291/loggedIn

- initiation of a small insidious outbreak of disease in noncommercial/feral pigs that is highly unlikely to get recognized diagnosed =
- small outbreak becomes insidious and widespread until it gets into a commercial farm (or larger backyard property) =
- diagnosis finally gets made but it's too late because the infection is already widespread and endemic in backyard/feral =
- inadequate resources available to respond and therefore decision is made to live with the disease

6 THE KEY DISEASES

With respect to transmission of pig diseases through pork, three diseases stand out: PRRS, ASF, and classical swine fever (CSF). While other diseases such as foot-and-mouth disease are also known to be transmitted through meat (usually via swill feeding), this report will only focus on those diseases known to be present in domestic or feral pigs in countries of the EU. It is noted that there are no feed waste feeding regulations enforced in Fiji.

6.1 PORCINE REPRODUCTIVE AND RESPIRATORY SYNDROME

PRRS is a viral disease characterized by two overlapping clinical presentations, reproductive failure in breeding animals, and respiratory disease in pigs of any age. PRRS is one of the most economically significant diseases of pigs in the world. Although reported initially in only a few countries in the late 1980s, PRRS now occurs worldwide in most major swine-raising countries except Sweden, Switzerland, Finland, Norway, Australia, and New Zealand.

6.2 AFRICAN SWINE FEVER

African swine fever is a highly contagious, viral disease of pigs. African swine fever virus can spread very rapidly in pig populations by direct or indirect contact. It can persist for long periods in uncooked pig products, facilitating its introduction into new areas. This virus can also become endemic in feral or wild pigs, and transmission cycles between these animals and Ornithodoros ticks can complicate or even prevent eradication. ASF virus isolates vary in virulence from highly pathogenic strains that cause near 100% mortality to low–virulence isolates that can be difficult to diagnose. There is no vaccine or treatment.

6.3 CLASSICAL SWINE FEVER

Classical swine fever is a highly contagious, viral disease of swine that in its most virulent form causes morbidity and mortality approaching 100%. Classical swine fever (CSF) occurs only in swine, and all age groups are susceptible. Classical swine fever currently exists in many countries, including areas of Central and South America, the Caribbean, and much of Asia. Since 2005, the disease has been reported in feral (and occasionally domestic) pigs from a number of countries in continental Europe: Armenia, Bosnia and Herzegovina, Bulgaria, France, Germany, Croatia, Hungary, Latvia, Lithuania, Macedonia, Romania, Russia, Serbia and Montenegro, Slovakia, Ukraine, and Serbia.

Classical swine fever is highly contagious and infection spreads rapidly by direct or indirect contact between infected and susceptible pigs. Pigs with acute infection shed large amounts of virus before they are visibly ill, during illness, and after recovery. Uncooked waste food containing infectious pork scraps and subsequently fed to pigs has been well documented as initiating many outbreaks.

7 FIJI PIG DISEASE STATUS

Pig disease status in Fiji is generally unknown. While some individual farms may have done some disease testing of their stock in the past, no official record of results is available. It does not appear that the government of Fiji conducts any active disease surveillance in pigs though it is possible that occasional passive surveillance does occur as part of clinical disease diagnostic investigations. The scientific literature offers little more information. A review of the historical literature on disease occurrence across PICT including Fiji, has been recently published and confirms the scarcity of information related to high consequence animal diseases in the country (Brioudes et al 2014).

Based on 2009 census data (relevant table included as Appendix 3), Fiji is estimated to have 73,698 total pigs, including 11,440 animals of breeding age. In the census report, the government suggested this number approaches self-sufficiency for the local economy. It has been estimated that perhaps less than 1,500 breeding sows are managed under intensive, commercial conditions. Feral boars are known to populate Fiji and provide sport and food for some locals; no reliable source to estimate their numbers or distribution could be located.

OIE maintains a list of high-consequence transboundary diseases and all OIE member countries are expected to make 6-monthly reports of their status relative to each of these diseases. In addition, any new or significant occurrences of these diseases are supposed to be reported by member countries as a matter of urgency. Amongst these OIE list diseases, a partial list of the pig-specific diseases and the likely situation in Fiji is presented below.

Partial list of OIE high-consequence animal or zoonotic diseases with significant opportunity for transboundary spread in pigs. Fiji status for each disease for the years 2008-2017 is described. Data from OIE WAHID database as of May 2018.

Disease or agent	Reporting status (Fiji, 2008-2017)	Interpretation
African swine fever	Never reported (domestic and wild)	Highly unlikely to be present now or historically.
Atrophic Rhinitis	No Information	May be present now or historically

Aujeszky's disease	Never Reported in Domestic or wild	Unlikely to be present. PNG, Samoa, and Tonga have reported cases during this period.
Brucella suis	Disease absent (domestic) No information wild (2013)	May be present now or historically. This disease is present in most countries that do not have a dedicated eradication programme. Cook Islands, French Polynesia, Micronesia (Federated States), and Tonga have reported cases during this period.
Classical swine fever[b]	Never reported (domestic and wild)	Unlikely to be present now or historically.
Foot-and-mouth disease[b]	Never reported (domestic and wild)	Highly unlikely to be present now.
Porcine cysticercosis	Never reported (domestic and wild)	Unlikely to be present now. Some people in Oceania (PNG) and Indonesia have evidence exposure but with the source unknown; WHO considers the region at-risk.
Porcine reproductive and respiratory syndrome	Disease absent (domestic and wild)	Unlikely to be present now or historically. Disease is known to be present in French Polynesia during this period. Virtually all countries (except NZ) that have traded in live pigs or semen originating from Asia, Europe, South America, or North America are or have become infected with PRRS virus.
Swine vesicular disease	Never reported (domestic and wild)	Highly unlikely to be present now or historically.
Transmissible gastroenteritis	Never reported (domestic and wild)	Highly unlikely to be present now or historically. Disease is known to be present in French Polynesia during this period.
Trichinellosis	Disease absent (domestic) No information wild (2013-14)	May be present now or historically. This disease is present in most countries (particularly wild or non-commercial populations) that do not have a dedicated eradication programme. French Polynesia, Kiribati, New Zealand, PNG, and Tonga have reported cases during this period.
Vesicular stomatitis	Never reported (domestic and wild)	Highly unlikely to be present now or historically.

8 THE FIJI PIG INDUSTRY

The Fiji pig industry is characterised by 3 larger farms vertically integrated with processing butchers and a number of smaller farms (over 400 are registered members with the Fiji Pig Producers Association) that sell pigs for processing and into the Maqiti (fresh meat) market. The commercial industry is not subsidised by the Fiji Government and there has been considerable investment in the industry by the individual farmers over the last ten years.

Fiji farmers produce pork at a competitive price that means imported pork from Australia and NZ grown in those countries cannot enter Fiji, even without duty, cheaper than it can be produced locally. Pork has made considerable gains in pricing. Pork cuts are now cheaper than lamb and moving closer to chicken.

The local industry typically meets 80% of national demand. Demand for pork increases in line with tourism numbers as demand for processed bacon in the hotel industry essentially drives the local production to the extent that farmers have grown their capacity with the continued demand and increase from tourism.

Where there is a shortfall in demand, due to the skewed demand for middle cuts over legs (to make bacon) historically it is made up by importing Australian meat (from Australian grown pigs) and processing it (value adding) in Fiji by our butchers. This keeps the value adding revenue in Fiji.

The Fiji Pig industry and butchers can produce all local requirements, retain jobs, trade in foreign exchange and provide food security in Fiji. The industry also plays a vital part in utilizing waste products from food manufacturing industries in Fiji which, because of the nature of the waste produce, do not have alternative export market outlets.

Fiji farmers produce and sell a whole pig. Importers only import specific cuts that are in demand, and/or processed meat (bacon) that has used subsidized pork meat as ingredients from Europe and Canada. The local industry producing a whole pig cannot compete against this subsidised import of selective pork products and also loses the opportunity to sell the cuts in highest demand and price.

The EU maintains large subsidies. The total value of subsidies in the EU is Euro 270 billion (FJD 658 billion). These payments are made to farmers through a number of mechanisms including Direct Payments, Market Subsidies and Rural Development grants. Fiji cannot afford this level of subsidy for its farmers. The value of subsidies to the farmers is estimated at 27% of total income.

"the average share of direct payments in agricultural income (from which all production factors have to be remunerated) was 27 %. This figure has not changed significantly in recent years."[3]

[3] http://ec.europa.eu/agriculture/rica/pdf/hc0301_income.pdf

8.1 CONTRIBUTION TO THE ECONOMY.

The industry saves up to $35 million in foreign exchange in its Import Reduction program of supplying the tourism market. Larger private sector farmers, to meet the demand of the industry, have invested of $5.2 million in recent years. Government is supporting a number of small farmers to enter the industry. The industry utilises and adds value to a number of other local by products that would otherwise be exported at lower commodity values. These include Coconut Meal, Mill Mix and protein meals which are mixed with imported grain for pig feed.

Direct employment at farm level by the Commercial and small enterprise farmers, but more so the industry supports local jobs in the processing, wholesale sectors and the feed meal sector. Pig meat processing is a major component of the processing (butcher's) market. The industry is a major pillar of the survival of the Fiji Meat Industry Board faced with ever decreasing beef numbers.

9 CONCLUSIONS

Failure to act will see the continued rapid down scaling of the local industry with smaller farmers going out of business, targets for food security and rural employment not being met. Larger farms will down scale their operations to a level that reverses Governments initiative for self-sufficiency and import reduction.