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SMALL SCALE PIG FARMING: PRACTICES AND OBLIGATIONS

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September 2013

Before you start:

Why do you (want to) keep pigs?

- As a means of generating some income
- As part of your "small farming system"
- Simply because you like pigs

Whatever your reason and regardless of the number of pigs kept, being a pig owner means you will have obligations to:

- Your stock
- Your neighbours
- Your family and friends
- Your local and regional councils
- Established pork producers
- Others who handle or process your pigs

Can you say yes to this checklist?

- Do you like working with pigs?
- Can you cope with the daily care and commitment they will require?

Have you checked on the legal requirements with the District and Regional councils for:

- Land-use zones
- Buildings
- Manure management

Is there a market for what you intend to produce?

CONTENTS

Contents.....	3
Introduction.....	4
New Zealand’s commercial pig industry	4
Role of NZPork	5
Legal obligations.....	6
National legislation	6
Regional councils	6
District Councils	7
Consideration for others.....	7
Animal Welfare	7
PigCare™ Audit.....	7
Farming Pigs.....	8
Housing	8
Weaner Housing	8
Grower Housing	8
Breeding stock	9
Feeding	9
Common feedstuffs	10
Water - the forgotten nutrient	10
Animal Health	10
Signs of ill health	11
Diseases	11
Erysipelas.....	11
Leptospirosis	11
Parvo virus.....	11
Other common problems	11
On-farm biosecurity	12
Buying in stock.....	13
Weaners.....	13
Breeding sows.....	13
Boars	13
Moving and transporting pigs.....	13
Animal Status Declaration (ASD).....	13
Humane Slaughter techniques	14
Processing and Selling Your Pork.....	14
Home kills.....	14
Selling pork	14

INTRODUCTION

Historically pigs have held an important place in providing food for households across much of the world. Depending on what your aims are and what your level of previous experience with pigs is there are many different elements to consider when you start thinking about getting into pig farming. This guide is intended as an introductory 'how-to' but it is not exhaustive. More information is provided on NZPork's website www.nzpork.co.nz.

In a small farming situation, pigs are often seen as an ideal way to utilise an oversupply of produce, garden waste, household food scraps, commercial food by-products, and clear weeds. They are a source of nutritious meat and provide valuable organic fertiliser. Pigs therefore are often seen as a natural 'small-farmer's' enterprise either as a hobby or as a means of making those extra few dollars.

However good animal husbandry is critical to ensure pigs are adequately cared for.

There are two factors that are essential to successful pig rearing:

- the first is warm, dry, draught free, comfortable and clean housing
- the second is providing daily observation and attention (feeding and cleaning) of your stock.

It is crucial these two factors are not overlooked in the enthusiasm to get started. As with any livestock if pigs are kept in poor conditions they will struggle to thrive. Pigs are naturally clean animals, and poor housing and living conditions will cause welfare issues and mean that pigs become non-productive.

Stock living in dirty, vermin infested conditions is not being properly cared for. Feeding and visiting your pigs daily is an essential task. Animals enjoy a routine, and daily visits help you get to know your stock and deal with problems early. Daily visits mean you will spot, and quickly deal with, a lame, sick or out-of-sorts pig which stays huddled at the back or takes little interest in its feed.

As well as being responsible for your pigs' welfare and health, you will have responsibilities to all sorts of people once you own pigs. Examples of these folk are your family and friends, people who will be handling or growing your pigs on further, your neighbours and those involved in the slaughter and potential sale of your stock.

As a pig owner, you also have a responsibility to the pork industry. The commercial industry works very hard to uphold good animal welfare standards, good animal husbandry practices, sustainable farming methods and to maintain strict biosecurity practices. As a pig owner (even a small-scale one) you have an obligation to meet all these standards.

NEW ZEALAND'S COMMERCIAL PIG INDUSTRY

While the first pigs were introduced in 1796, the NZ pork industry developed in the early 20th century alongside dairying, utilising the then waste streams of skim milk and whey products. In the 1970's, following radical changes in the dairy industry, feeding pigs an all-meal diet based on barley and maize became common.

As a result, the total number of pig farms dropped, and the bulk of production shifted to the South Island. This shift from many small farms to fewer larger farms continues today. Currently there are about 125 commercial pork producers, producing the majority of fresh pork consumed in New Zealand. These producers, supported by NZPork's activities, have worked hard to make an efficient and productive industry. Today, New Zealand farms produce around 700,000 pigs every year, and the pork industry in its entirety contributes over a billion dollars a year to New Zealand's economy.

In 2013 the New Zealand pork industry, represented by NZPork, comprises a relatively small but significantly integrated sector of the New Zealand agricultural economy. Large commercial pork operations provide a range of economic and social benefits to their local region. They form an integral part of the rural value chain, supporting other farming sectors (such as grain for feed), using transport services, providing employment, and retaining families in a rural areas.

As an industry, we have worked hard to maintain and continually make improvements to farming standards. Our pigs are farmed in clean housing, fed good diets under healthy conditions, using environmentally

sustainable practices and meeting excellent welfare standards. As a result, we produce a range of valuable, tasty and nutritious 100% New Zealand pork products.

ROLE OF NZPORK

NZPork's role is to support the profitability and sustainability of New Zealand pork farmers. NZPork is funded by producer levies and its key priorities are market promotion, environmental sustainability, excellent animal health and husbandry, positive outcomes from science investment, and effective communications.

Important aspects include:

THE ENVIRONMENT

Environmental management has been an explicit strategic focus over the past 30 years. Over this time NZPork has worked pro-actively with central government and local authorities to research the environmental impact of industry practices, to develop best management tools, and to support producer uptake.

NZPork established the position of Environmental Adviser to research and disseminate information about pig farming's impact on the environment including:

- Developing a "Code of Practice", which deals with issues facing both intensive and extensive pig units.
- Developing an Environmental Management System to help producers move towards more sustainable management practices.
- Facilitating seminars to bring both producers and local authorities up to date on developments.
- Organising formation of regional liaison groups, comprising both producers and local authority personnel. This provides opportunities for discussion and dialogue.

NZPork has produced 'EnviroPork™: the pork industry guide to managing environmental effects'. The purpose of EnviroPork™ is to provide pork producers, council officers, persons looking to enter into the pork industry, and other stakeholders a reference for acceptable practices to manage the environmental effects of pork production. This guide should be read and understood prior to any farming of pigs. See <http://www.nzpork.co.nz/Environment/EnviroPorkandEMS.aspx>

A major issue is the need to change people's perception of pig manure. Historically it has been perceived as a nuisance and often disposal of the 'waste' was a major problem. Now people realise that in fact pig manure is a valuable resource supplying nutrients to sustainably grow crops and pasture.

ANIMAL WELFARE

Pig owners need to be aware of their legal responsibilities about animal welfare under the Animal Welfare Act 1999. The Act establishes the fundamental obligations relating to the care of animals. The Act also allows for the issue of codes of welfare, which set out minimum standards and recommendations.

The New Zealand pork industry has taken a proactive stance on animal welfare including making considerable contributions to the 'Animal Welfare (Pigs) Code of Welfare 2010'. The Code sets out 19 minimum standards that producers need to meet to care for their animals. It also contains useful information and recommendations on animal husbandry and management practices. This Code of Welfare applies to all pig owners, irrespective of farm size, and should be consulted before starting a pig farm.

Animal welfare inspectors from the Ministry for Primary industries (MPI) and SPCAs have the role of ensuring compliance with the legal requirements.

For more information including the Pigs Code of Welfare, see <http://www.nzpork.co.nz/AnimalWelfare.aspx>

MARKET PROMOTION

NZPork is heavily involved in the promotion and marketing of 100% New Zealand Pork – we are currently running a campaign encouraging consumers to 'Insist on 100% New Zealand Pork'. For more information, products and recipes see NZPork website <http://www.pork.co.nz/>

LEGAL OBLIGATIONS

A pig farmer's 'right to farm' carries legal obligations across three different levels. These obligations are outlined below.

NATIONAL LEGISLATION

The Biosecurity (Meat and Food Waste for Pigs) Regulations 2005, passed under the [Biosecurity Act 1993](#), prohibit feeding pigs uncooked meat or food that has been in contact with uncooked meat. If meat or meat products are fed to pigs they must be treated by cooking to a temperature of 100°C for 1 hour (in order to prevent the spread of diseases to pigs).

The [Biosecurity \(Ruminant Protein\) Regulations 2010](#) under the Biosecurity Act 1993 aim to preserve New Zealand's BSE-free status and manage the risk of a BSE outbreak. The regulations prohibit the feeding of ruminant protein (except dairy produce) in any form to ruminant animals. One of the objectives of these regulations is to minimise the risk of any contamination of feed intended for ruminants in feed mills that may utilise ruminant protein for feeding pigs.

The [Animal Products Act 1999](#), aims to minimise and manage risks to human or animal health arising from the production and processing of animal material and products. It institutes measures that ensure, so far as is practicable, that all traded animal products are fit for their intended purpose.

[Agricultural Compounds and Veterinary Medicines Act 1997](#). One purpose of this Act is to prevent or manage the risks associated with the use of agricultural compounds, primarily as risks to animal and public health. An agricultural compound is any substance, or mixture of substances or biological compounds, used, or intended for use, in the direct management of animals or applied in an area where animals are managed. These include any veterinary medicine, substance or mixture of substances or biological compounds used for post-harvest treatment of raw primary produce, or anything used, or intending to be used, as feed for animals. For more information, refer to the NZPork poster '[Responsible use of antibiotics](#)'.

[Health and Safety in Employment Act 1992](#). The object of this Act is to promote the prevention of harm to all people at work, and others in, or in the vicinity of, places of work by providing a safe place of work.

The Animal Welfare Act 1999, and [the Animal Welfare \(Pigs\) Code of Welfare 2010](#) set out animal welfare responsibilities.

REGIONAL COUNCILS

Regional Councils manage the resource consent process under the [Resource Management Act \(RMA\) 1991](#). Councils have rules and requirements covering aspects such as land use, water use, effluent management and air quality. At the time of writing, there are 16 regional councils in NZ.

Pig farming, along with other farming sectors, has long been an integral part of the rural scene. Increasingly, all farming sectors are recognising the importance of farming in a sustainable manner. The RMA provides a statutory means to consider today's concerns about the environmental effects of the industry and to facilitate solutions. Through the RMA, Regional Councils control activities with regard to the discharge of contaminants onto or into land, water and air.

It has been suggested that extensive outdoor pig units, which maintain good pasture or ground cover, should be a permitted activity since adverse effects tend not to arise. If appropriate, performance standards may be included for a range of characteristics, such as:

- Stocking density appropriate to soil type and rainfall
- Effective fencing to prevent stock fouling waterways
- Not permitting pigs to live in unsightly and unhealthy conditions, from which environmental pollution in any of its various forms can cause a significant effect. Potential problems can generally be averted by first considering these points:
 - Building and effluent collection system design
 - Management practices and level of farm skills
 - Hygiene standards

- Distance from neighbours
- Soil type and drainage
- Landscaping

Efficient and effective management practices are positive ways to avert potential problems. Examples include:

- Using electric fencing to control rotational grazing and avoiding waterways
- Sensible stocking rates to avoid pugging and loss of ground cover
- Effective separation of stock from their dung and urine, or alternatively provision of a deep litter system in which good composting takes place
- Using accurate and tidy feeding systems
- Maintaining buildings
- Boundary tree planting

Pigs produce between three and ten litres of effluent daily, depending on their size. This may double, or even triple, depending on their diet and the volume of water used for cleaning.

DISTRICT COUNCILS

District Councils are responsible for controlling land use issues such as subdivision, noise and odours as they affect amenity values.

The rules and requirements will differ depending on where you live and/or farm. Contact your local councils (both regional and district) and ask them for information. NZPork does not provide support or consultant services to individual farmers.

CONSIDERATION FOR OTHERS

All of these positive actions and investments of time and money can be very easily negated by the action of a few pig owners who neglect the basic principles of stockmanship and animal welfare. Similarly, disregard for the correct siting of units, the need to avoid the fouling of waterways and the neighbour's environment, whether real or perceived, quickly brings the name of all pig farmers in to disrepute.

ANIMAL WELFARE

Before buying/owning pigs you must read and fully understand the 'Animal Welfare (Pigs) Code of Welfare' to ensure you meet your animal welfare obligations. The Code outlines the minimum standards for all aspects of caring for pigs. There are significant penalties for failing to meet animal welfare responsibilities. A link to the Code is on page 6.

PIGCARE™ AUDIT

The New Zealand pork industry's animal welfare standards are among the highest in the world. Since 2010 this high level of animal welfare has been monitored through an independently administered welfare audit programme called 'PigCare™'. The PigCare™ audit ensures that regardless of the farming style used, pigs are properly cared for and raised in an environment that supports good health and welfare. The audit underpins the '100% NZ pork, bacon, and ham' labelling –only products from PigCare accredited farms can carry the labels.

To join the PigCare™ accreditation programme a farmer must register with ASureQuality and pay an annual registration fee. Annual audits are conducted by an approved auditor at the farmer's cost. Full details and audit documents are available from the NZPork website:

<http://www.nzpork.co.nz/AnimalWelfare/PigCare.aspx> .

NZPork recommends all small-scale pig farmers read the audit documents. Even if you decided full PigCare™ accreditation might not be suitable for your small-scale pig farm, reading through the documents provides a lot of good welfare advice and direction.

FARMING PIGS

New small-scale farmers can encounter problems by starting with big ideas but without the skills or practical knowledge to support them. It is very tempting to start with in-pig (pregnant) gilts. However, this requires expertise dealing with sows at farrowing and rearing baby pigs. A better option would be to get a "feel" for pig production by growing a few weaners over the summer months when a simple means of housing the pigs will be satisfactory and ground conditions are good.

HOUSING

Pigs lack insulating fur or wool and therefore need a good standard of housing to keep them warm and comfortable.

Pigs must be:

- provided with comfortable and secure housing
- protected from temperature extremes and have a warm, dry, draught free, clean sleeping area

Pigs confined in housing must have:

- room to feed, stand, lie down and stretch
- air quality that will not adversely affect their health
- (if not on a slatted floor) must have a dunging area separate from their sleeping area

Pigs kept outside must have:

- draught free, dry shelter available to protect them from unpleasant weather
- access to shade from direct sunlight, to prevent sunburn
- access to high ground where there is no danger of flooding

These requirements can be met with simple yet effective components, using insulation materials, straw bales, false ceilings and adjustable vents.

Remember that a cold or uncomfortable pig will use food primarily to keep warm and a pig suffering from heat stress will not eat. The smaller the pig, the more critical is a warm temperature, so that body heat is retained. The following table provides temperature range guidelines:

Type of Pig/ Temp	Boars and Dry sows	Lactating sows	Piglets	Weaners		Growers	Breeding Stock
			1-5kg	6-7kg	8-25kg		
°C	15-24	15-21	22-27	25-30	21-27	17-21	15-19

WEANER HOUSING

The younger the pig, the more vulnerable it is and the more critical are its accommodation needs. Pig must be kept warm and dry, subjected to minimum variations in temperature and have minimal contact with faeces and disease organisms.

Many people have great success in raising weaners in deep straw systems, as the weaners burrow into the straw and are well insulated and protected from cold draughts. You must not let the straw get wet and dirty. Chilled weaners will soon scour and foul the pen, and will sleep in a pile in one corner and shiver.

The use of weaner boxes for weaners up to 10 weeks of age is another approach to provide quality accommodation. A low roofed, well-insulated box works well provided numbers are strictly controlled.

GROWER HOUSING

As pigs grow, they become more tolerant of changes in the environment and housing needs become less rigorous. A popular design is a "kennel" area constructed in a general purpose building. A false roof or lid is positioned over the pigs' sleeping area to create a warm dry and draught free environment. The kennel lids should be of light, well insulated construction and easily adjusted. Straw bales can be placed on top of them to provide winter insulation.

This type of building should not be totally enclosed and should allow plenty of air movement higher up. A lightly insulated roof of the "umbrella" building to minimise solar radiation in summer is advised.

BREEDING STOCK

Small groups of less than 10 sows housed in yards work well. Sows can be bullies at feeding time, so the use of individual facilities or a large area for feeding is important. Where sows are run outside, a hard, dry area for feeding reduces wastage. Also providing a choice of shelter so that timid sows can seek refuge away from the dominant sow(s) is a good idea.

Individual sows seen to be losing condition should be fed alone - often they are slow feeders or at the bottom of the "pecking" order.

DEEP LITTER SYSTEMS

Deep litter systems can be used for housing growers and breeding stock, and can use straw, or sawdust, or a combination. These systems require a larger floor area per pig, and successfully accommodate weaned pigs through to breeding stock. Success depends on the understanding of the key principles involved and good day-to-day management. This includes:

- Area 1 to 1.3m² per growing pig
- Sawdust/straw minimum 600 mm deep
- New bedding must be dry before application
- Minimise spillage of drinking water into these bedded systems. Sloping flooring away from the bedding, sloping feed pads, or placing drinkers so pigs have to reach through the wall to drink with spillage falling outside the pen are all good ways to achieve this.

Weekly management requires removal of litter wet spots, routine litter replacement and the forking over of the whole pen to avoid compacting, as this limits microbial activity. The system needs regular maintenance, as the litter is a haven for lice and fleas.

FEEDING

Pigs are a monogastric animal, which means they have a single stomach gut system that is similar to humans. Pigs require a balanced diet including protein, energy and minerals.

A pig's capacity to cope with and utilise bulky, fibrous materials is quite limited. The smaller and younger the pig, the more concentrated the nutrients need to be in the diet. Older and adult stock, other than lactating sows are better able to cope with bulky feeds. Remember that pigs require a considerable quantity of feed just to maintain their current weight, so feed above this basic requirement needs to be supplied if juvenile stock is to continue growing.

An approximate meal feeding scale for a barley based proprietary feed is:

Pig Type	Weight (kg)	Feed (kg daily)
Weaners		1.0
Grower pigs	25	1.3
	45	2.0
	65	3.0
	85	3.5
Breeding sows/boars		2.5 - 3.0
Suckling sows		2.5 plus 0.5 per piglet

The simplest feeding regime is to purchase proprietary rations. This ensures that diets are correctly formulated for energy and protein, and that the correct balance of amino acids, vitamins and minerals is supplied. A poorly balanced ration will result in pigs which grow slowly and which are inefficient converters of their feed.

When feeding small numbers of stock, feed will have to be purchased in sacks, making it expensive, and many small producers try to economise by substituting alternative feeds. Remember that, as pigs make the most efficient use of their meal when they are young, it is vital they get as much as they can eat at this stage. Feed at least twice daily.

Later, substitution with more bulky and fibrous feeds can take place. A general rule of thumb is to start growing pigs at weaning on 1kg of meal daily, increasing this gradually to 3kg, after which alternative products can be introduced.

Common sense is needed when considering cost saving substitutes. Their bulk, water content, high fat or oil content are all factors to consider. An apparently cheap substitute can easily become an expensive mistake. Remember also that, by law, food scraps and food waste likely to contain meat, or, to have come into contact with meat, must be cooked to 100 C for an hour before use. (Refer The Biosecurity (Meat and Food Waste for Pigs) Regulations 2005.)

Potatoes are much better digested when cooked, while fermented products, or products that ferment while stored, such as apple and brewery wastes, can cause pigs to become drunk. By contrast, milk is an excellent feed, high in protein and minerals, which is excellent to combine with more bulky energy sources.

COMMON FEEDSTUFFS

Some common feedstuffs and their limitations are listed in brief below:

- **Cereals** - as the ration base they provide energy and some protein. Cereals need to be ground, or boiled, to assist digestion.
- **Cereal based products** - reject products such as bread, biscuits and breakfast cereals may be available, but competition for them is strong. They can be put through a garden shredder to produce a convenient meal.
- **Cooked potatoes** - high bulk, limit to 50 percent of the ration and only feed to pigs over 12 weeks. Balance the shortage of protein, calcium and phosphorus.
- **Dried blood** - very high protein content, but amino acids imbalance, limit to 5 percent of the ration.
- **Fish meal** - liable to taint fat and may cause Mercury residues. Limit to young pig diets only, at a maximum of 5 percent.
- **Grazing** - use for adult stock only and treat grazing as a supplement to the basic ration not a substitute. Do not put in-pig sows onto Lucerne, high levels of oestrogen compounds can cause abortions. Fodder beet, choumollier and pumpkins have some feed value.
- **Legumes** - imbalanced energy to protein ratio, limit to 25 percent of the ration.
- **Meat meals** - high ash content, limit to 25 percent of grower rations and 10 percent of weaner rations.
- **Milling by-products** - high fibre content, limit to 10 percent of the ration. Separated milk or skim-milk - separated milk is a good source of protein, feed 2 to 4 litres daily depending on age. Top up feed levels with only a ground cereal, plus a mineral supplement.
- **Whole milk** - a good source of protein and is readily available at some times of the year. Remember to introduce it slowly. Dried milk powders are commonly used as a source of high quality protein for young pigs.
- **Whey** - substitute energy source, feed with a protein balancer ration. Remember it is a bulky feed, known to cause bloat, so restrict to older pigs.
- **Waste food** - you need a regular and reliable source to minimise dietary changes for pigs as these can cause digestive upsets. Remember pigs do not like tealeaves, coffee grounds or citrus skins.
REMEMBER by law, all food waste that contains meat, may contain meat, or could have come into contact with meat or meat products must be heat treated for an hour at 100C before being fed to pigs.

WATER – THE FORGOTTEN NUTRIENT

Growing pigs require from one to 10L daily depending on age, while a suckling sow requires at least 25L a day (up to 50L). Water is vital to productivity and good health. The need to supply clean, cool water should never be under-estimated, especially if spillage or low water pressure restricts individual pig intakes at critical times.

ANIMAL HEALTH

Prevention is always better than cure, so remember to maintain good hygiene standards, especially around young pigs and whenever carrying out veterinary tasks.

The skin is the pig's barrier against infection. Cuts and grazes of the skin allow infections, which can result in swollen joints. The gut is another point of entry for infectious agents. Minimising stress and sudden diet changes allows the animal to maintain its natural immunity status within the gut. Stock observation is also vital, with feeding being a good time to check for the first signs of trouble.

Pens need regular cleaning. Rest the pen between groups for as long as possible. After each group of pigs all moveable items such as troughs and false ceilings should be taken out, scrubbed and left to dry.

Visitors can bring diseases onto your farm. Providing gumboots for visitors to wear helps to manage this risk.

Normal, healthy pigs look fit, move freely, have fine hair with good skin colour and will exhibit a 'bloom'. They will be free from subclinical (not obvious) disease, eating well, growing to potential and producing good piglets. They will be free from clinical (obvious) disease, showing no signs of scouring, coughing, rubbing or limping.

SIGNS OF ILL HEALTH

- Reluctance to move/lethargic
- Poor appetite/off feed
- Dull eyes
- Dry nose
- Cold ears
- Straight tail
- Inflamed mucous membranes
- Pale, yellow or red
- Dull skin and hair
- Hairy
- Blotchy or discoloured skin
- Sunken flanks
- Protruding backbone
- Abnormal dung - either loose or scouring or hard
- Erratic breathing
- Coughing
- Discharges

DISEASES

The three diseases most commonly vaccinated for on-farm are: Leptospirosis, Parvovirus and Erysipelas.

Vaccination is a prevention technique but not a cure. It introduces immunity by stimulating antibody development. Immunity only lasts about six months so repeat shots are necessary. Programmes should be designed to cover breeding stock at appropriate times in their life cycle. With all vaccinations, it is important to use the correct dosage, inject into the neck and keep all the instruments sterile.

ERYSIPELAS

In addition to causing reproductive failure in breeding stock, Erysipelas is a major cause of joint arthritis, which can lead to carcass condemnations. Fever and reddened blotches on the skin may be observed. All stock intended for breeding should be vaccinated at selection, and re-vaccinated 3 or 4 weeks later. Sows can be vaccinated after weaning and boars twice yearly.

LEPTOSPIROSIS

Leptospirosis is a common pig disease that causes abortion/premature births in sows and is active in the grower herd. It is a major health threat to farm staff and abattoir workers. Commercial farms have an active vaccination and control programme in place. The infectious agent is the bacteria 'leptospira' which has a number of strains. The disease is controlled in the breeding herd through six-monthly vaccination.

PARVO VIRUS

This is another disease causing reproductive failure. Infection in mid-pregnancy results in mummified or weak piglets at birth. Gilts should be vaccinated at selection, i.e. at least one month prior to first mating. Twice yearly booster vaccinations are recommended.

OTHER COMMON PROBLEMS

Some other common problems to be aware of are:

- **Parasites** - Control is important as high levels will reduce performance and lower the stock's resistance to other infections. Routine programmes to control internal and external parasites are necessary.
- **Worms** - Grazing adult stock are particularly prone to picking up worms, although younger pigs invariably get them from adult or older stock too. Can be controlled using a worming supplement in-feed, and making sure all pigs consume their full share. Treat sows prior to farrowing and at weaning; boars six monthly; and growing pigs at seven to ten weeks of age.
- **Lice** - are often a problem and generally first appear around the ears (big and triangular). Can be treated by scrubbing with a soapy solution, this must be repeated twice more, at 7 day intervals, to kill the new lice as they hatch.
- **Mange** - (scruffy reddened skin around the ears) is caused by another external parasite which can cause severe discomfort and distress in pigs. If untreated, lesions will also appear on the tail and inside the thighs and shoulders. Animals will be seen continually scratching and rubbing. All adult stock should be treated regularly with a proprietary product.
- **Scouring** - often occurs in newly weaned piglets. Causes are numerous and include nutritional changes, moving stress and disease challenge. The major remedial action is to provide plenty of clean water, including electrolytes. If the scours persist consult your veterinarian.
- **Pneumonia** - and other respiratory diseases are commonly caused by poor housing and damp, cold or draughty conditions. If your pigs are coughing a lot, or generally appear unhealthy then look to improving your facilities. Antibiotic treatment can only provide a short-term cure.
- **Farrowing fever** - occurs post-farrowing. The sow runs a fever, her udder becomes hard and the milk supply dries up. A white vaginal discharge may be seen. The vet should administer an antibiotic to prevent severe mastitis or even death. Prevention is by reducing feed intake and including bran in the pre-farrowing feeds to prevent constipation; also pre-farrowing exercise may help. Piglets can be kept alive and vigorous with an electrolyte solution, provided they have previously received colostrum.
- **Anaemia** - with in-door housing, inadequate iron intake from the sow's milk will be apparent in the suckling piglets. The old-fashioned remedy was to put a clod of soil, plus 30 gm of ferrous sulphate in the pen. Supplemental iron dosing either orally or by neck injection is more effective.
- **Fungal toxins** - on wet or poorly stored grains can affect the reproductive organs of both boars and gilts. Sows may abort or not hold to service.

ON-FARM BIOSECURITY

The New Zealand pork industry has among the best animal health status in the world. In fact, our health status is one of very few competitive advantages over other countries including those countries that export to New Zealand and compete in our domestic market. Our disease freedom comes from New Zealand's relative isolation, the biosecurity policies currently in place, and the relatively low density of our pig population.

New Zealand Pork's strategy for biosecurity is "prevention is better than cure" and acknowledges that once a disease enters the pig population, particularly exotic diseases, it is very difficult if not impossible to regain freedom from that disease. The New Zealand industry is unique in that around 40% of the sows are managed outdoor and up to 40% of the pigs are finished in open barns. These dynamics make it very difficult to stop disease being carried from site to site (especially by air-borne spread), thus the importance of robust biosecurity systems to prevent exotic diseases from entering New Zealand.

Even on a small farm biosecurity is important to protect the health of your animals and New Zealand. Effective on-farm biosecurity requires minimising contact with unnecessary persons, vehicles and other animals - as these can all represent disease vectors. Simple steps you can take include:

- Signs at the entrance to the piggery telling people who to contact and what to do before they enter.
 - Visitors should not have had contact with pigs for at least 24 hours
 - People with the flu should not come in contact with pigs
- Extra pairs of gumboots and overalls for visitors
- Enforce Biosecurity (Meat and Food Waste for Pigs) Regulations 2005
- Know where new animals have come from and keep them in quarantine for at least a week before introducing them to your pigs
- When you come in contact with other pigs, operate a 24h "stand down" before you contact your pigs.

NZPork's guidelines to develop an on-farm biosecurity standard can be found at:

BUYING IN STOCK

Be aware that bought-in-stock can bring disease onto your farm, so bringing in pigs is always a disease risk.

WEANERS

Weaners are normally traded at 8 to 10 weeks of age (18 to 20 kg liveweight). Look for pigs with a bright appearance, clean skin that show a keen interest in both food and life in general.

Avoid buying runts or "poor doers". A suitable checklist is:

- Avoid hairy pigs. These have often had a hard cold start to life and they will be old for their age and probably suffering from illness, e.g. pneumonia
- Avoid scouring pigs. Any visual signs of loose faeces, dirty backsides or red inflamed areas are a warning to potential purchasers
- Avoid pigs that cough
- Avoid pigs that limp.

Try to obtain pigs that have been weaned at least a few days prior to transfer. Settle pigs into their new home quickly, and unless they have recently been treated, treat for internal and external parasites. Introduce your feed gradually, keep them warm and if possible provide plenty of dry straw or other bedding.

BREEDING SOWS

The purchase of breeding stock from either a known colleague or recognised pig breeding company is recommended. Unless there is a genuine clearing sale, buying from a sale yards is a risky business, as you may well buy someone else's cull.

Buying unmated gilts is the safest option. This gives the young gilt time to become accustomed to the particular set of conditions on your unit (including the disease organisms). If purchased at 90 to 100 kg, they will be ready for mating in about a month.

BOARS

Remember your boar has a major influence on the progeny (1 boar to 20 sows). So it's worthwhile to choose a superior quality boar. Also, successful breeding depends on a sound, vigorous boar. No stiffness or lameness should be apparent.

MOVING AND TRANSPORTING PIGS

Pigs can be difficult to move across open spaces, and some appropriate equipment and forward planning are vital. Some golden rules are:

- Don't lose your temper, take a calm approach
- Use feed as a lure
- Carry something large, flat and solid like a piece of plywood. Use this to block escape routes - the theory being they won't go through what they can't see through
- Using raceways between buildings and paddocks is much easier
- Make sure trailers have solid sides and a provision for covering in rain
- The "wind chill" effect on pigs loaded in an open trailer can be detrimental even over short distances, (equate it to sitting in your shirt-sleeves and you'll find it cool even on a warm day). Add straw bedding if traveling any distance. Far too many pigs come to an untimely end due to pneumonia because of poor transport practices.

ANIMAL STATUS DECLARATION (ASD)

If persons are moving or selling pigs, under the Animal Products Act, the Animal Status Declaration for Pigs MUST be completed for all consignments of pigs sent for processing or sent from one property or saleyard to another property or saleyard where there is a different person in charge of the pigs.

The ASD provides information about how pigs have been reared and includes questions on withholding times if pigs have received treatments, if they are under movement control or under surveillance for residues. In addition, there are a number of pork industry agreed requirements.

The ASD form can be [downloaded from the NZPork website](#)

HUMANE SLAUGHTER TECHNIQUES

When pigs need to be destroyed due to injury or ill-health, the method of slaughter should be effective and cause immediate unconsciousness which persists until death.

Very young pigs can be rendered unconscious by a blow to the head with a heavy metal object, delivered to the frontal region. Immediately afterwards the animal's throat should be cut.

Grower and adult pigs should be shot before being bled by a method that causes gross damage to the front portion of the brain. The animal must then be bled immediately by either a deep incision in the neck or by sticking between the first two ribs, to sever major vessels close to the heart. Three types of firearm can be used:

- A rifle
- A 12-gauge shotgun loaded with buckshot or
- a captive bolt.

Remember a current firearms licence is required. Shooting a large pig is a difficult procedure and should not be taken lightly.

PROCESSING AND SELLING YOUR PORK

HOME KILLS

All 'small holding' farmers and owners must use commercial abattoirs, where the resultant meat is not for their own personal consumption.

It is illegal to kill stock for sale at other than licensed premises, where the animals and carcasses are inspected for food safety and wholesomeness. If you are raising pigs for your own consumption, you can kill and process them yourself or a registered homekill provider can be hired. A list of homekill service providers can be found at <http://www.foodsafety.govt.nz/registers-lists/service-providers/index.htm>.

Homekill meat can only be for your personal consumption, including your direct family and permanent employees and their families. It cannot be sold or gifted. It is consumed at 'own risk'.

SELLING PORK

If you plan to sell your pork to anyone or at a farmer's market or to local businesses such as butcheries and restaurants the pigs must be slaughtered by a registered meat processor (abattoir).

A list of abattoirs that process pigs can be found on the MPI Foodsafety website [here](#).

At the time of writing there are 7 licensed pig slaughterhouses in New Zealand and not all of them will process pigs for individuals. It is very important that before you start farming you know how you will get your pigs to slaughter and where/who is going to buy the meat.

Further information can be obtained from the NZPork website: www.nzpork.co.nz