



RED DEER IN A FARM SYSTEM

Shed design

The shed and yarding system on a deer farm must be designed and constructed to provide a safe and practical work environment for both animals and the operator. Deer are inherently flighty animals especially when stressed, and can become unpredictable when handled. It is therefore important that sheds, yards, and races are designed to eliminate the chance of injuries. A great set-up will provide an efficient flow of deer from their paddock, through the race, yards and shed, allow them to undergo their various treatments and be back out grazing in the paddock in as little time as possible, without a fresh carpet of deer hair shed onto the floor.

Good yards save time and money because they result in:

- less stress on deer (stressed deer = reduced production)
- less stress on the operator (more enjoyable working environment)
- reduction in labour costs (personnel spend less time struggling to handle deer in inappropriate yards, labour costs are probably the single biggest cost in deer farming)
- reduced chance of injury to the handlers in the sheds, and the animals
- increased property value

It is recommended that if you are planning on building a deer shed and yard facilities from scratch that you go and visit other facilities to see which systems work

Choosing a Site for the Shed

The site of the deer shed on a farm must be carefully considered. If put in the wrong place then there is every good chance that mustering the deer into the sheds and yards will always be an ordeal.

The following suggestions or tips for good shed design should be considered:

- Good drainage is essential, therefore the shed and yards should ideally be sited on a natural rise, or on elevated ground.
- Deer yards should be sited away from noisy traffic situations.
- The loadout race should be situated in a place that is easily accessible for the transport trucks in all weather conditions. A good vehicle track leading to the shed is essential.
- Power to the shed for lighting and the use of powered equipment such as hydraulic crushes, or pressure washers should be planned. Power can also be provided by a portable generator. Note: deer should not be allowed access to power cables. They may chew the cords and risk being electrocuted.
- Running water is necessary to provide a means of hosing out the facility.

Shed's lead-in race

- The lead-in race to the shed should be easily accessed from the farm's central race. The following design features are recommended for an effective lead-in race:
- The race should be 3-4 meters wide and start to narrow once the yards are reached.
- It is recommended that the lead-in race be covered in a solid material, e.g. shade cloth or space boarding. Deer have been known to break their necks by hitting netting at an acute angle when running down a race. The other advantage of creating a solid barrier is that the lead-in race, or lane appears to be an escape corridor for the deer which aids deer flow into the yards. Only non-toxic planting species should be used along the edges of raceways etc.
- The gate into the yards should be of very strong construction, be a minimum of 2 metres high, and be easy to close quickly. It is recommended that the top hinge gudgeon be installed upside-down to prevent the gate from being lifted off its hinges. The latch must be strong. Deer often get spooked as they encounter the shed and often try and



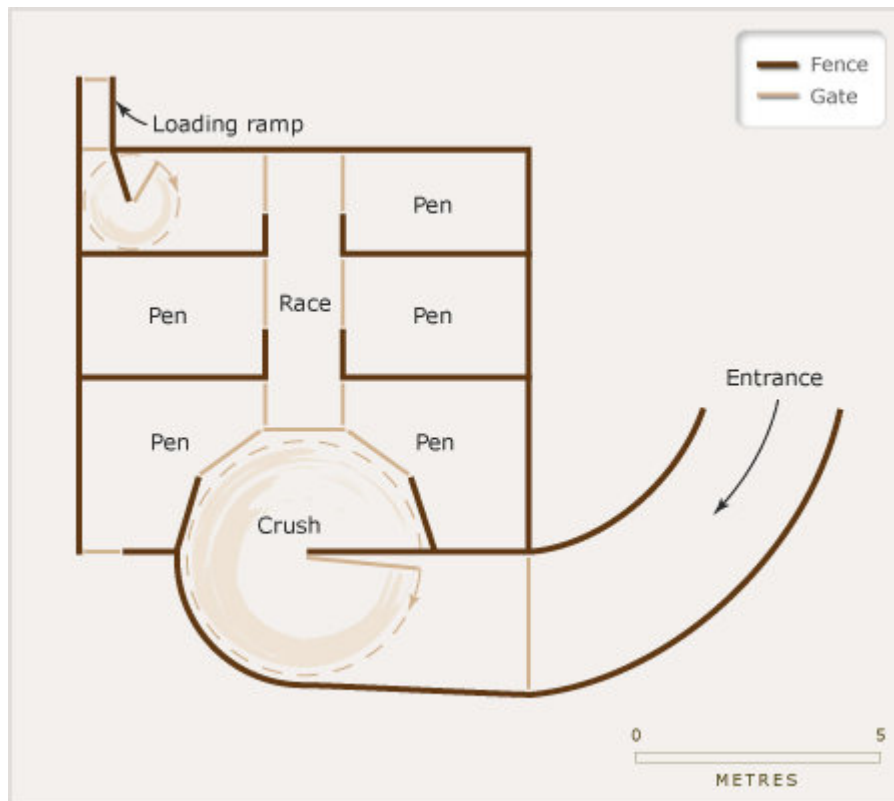
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escape or stampede back out into the lane en masse, which is incredibly dangerous to the person trying to latch the gate closed. It is recommended a strong, galvanised, quick self-latching latch be purchased from any farm supply merchant for this purpose. Slow to close and clumsy chains or hooks are not to be used!

Yards and Shed

- There are many types of deer shed designs being used in the UK, however there are some poorly designed sheds that are essentially danger traps. The following examples of shed design are ones that have features that provide a safe working environment when handling deer, and have practical layouts for ease of use and good deer flow.
- It is advisable to split large mobs in the holding or receiving yards before the mob enters the shed. This makes them easier to handle, but reduces safety concerns for both animal and handler. A large mob of panicked or stressed deer can become very hazardous to handle, but also deer injuries become more common.
- Large mobs of deer in a yard or shed are more likely to try and assert a pecking order amongst themselves, and may start to fight. It is advisable to only bring in small mobs of deer into the shed. And split larger mobs into approximately 12-20 animals per group.
- Only compatible animals should be penned together.
- The circular yard plan works extremely well when handling deer. Deer have a longer flight distance than other animals, i.e. the try and runaway from you at every chance they can get. The circular yard therefore works well with deer, because the deer will move naturally around the corner to try to move away from the handler. They also provide many options for sorting out or drafting deer by providing many pens, and gate setups. And they are also relatively easy to build. Below is an example of a circular yard and shed system. (AgriQuality Safe Practical Deer Yards, 2005).
- Rectangular yards also work well, provided the same principles of good deer flow are adhered to. Any corners should be boarded off at 45 degree angles, so that deer do not congregate or pile up in corners. It is inadvisable to use railing with large gaps as this provides a great ladder like structure for deer to climb up and make their escape.

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Other good design features of a deer shed include:

When planning a new shed, the overall layout must be practical for the operator, special consideration needs to be placed on what areas are to be used for what purposes or end use, e.g. if artificial insemination is to be carried out in the shed, then these places must have adequate light and be able to be easily cleaned to maintain hygiene.

Health and Safety

- Any animal health remedies, e.g. drenches or drugs must be contained in a lockable cupboard within the shed.
- A first aid kit and emergency response system, must be clearly displayed.
- A clearly displayed emergency response sign should be included in every shed with phone numbers, and emergency contacts clearly visible. All workers in the shed should have first aid knowledge, and know which phone numbers to dial in case of emergency.

Lighting and ventilation

- The utilisation of natural light at strategic places to encourage movement of deer through the shed. This is because the lightened area looks like a clearing that the deer will naturally move towards.
- Natural lighting can be provided by incorporating clear poly-carbonate sheeting in the roof over the working areas.
- Good ventilation is essential in deer sheds, it is common for temperatures to rise to dangerous levels especially in summer, this becomes a welfare issue for the stock, and is very uncomfortable to work in.
- Provide adequate lighting and good ventilation, however it is recommended that deer contained within the shed are not able to see deer leaving the shed, or deer outside in paddocks or holding yards.



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Flooring

- Concrete floors can be installed in the shed after the yard and race posts are installed, and before walls are constructed.
- A slight gradient sloping to a natural drainage point is recommended, the drain must be adequate to enable the shed to be hosed out when required.
- Regular cleaning of the flooring is recommended due to the risk of ammonia buildup where ever the deer are being held.
- A slight gradient leading through a shed also encourages deer to flow through it as deer will move naturally up-hill better.
- Scoring the concrete is recommended to produce a non-slip surface or the use of rubber matting or wood chip on the floor.
- The forcing pen areas and race should be covered and weather-proof to provide a dry working environment. A muddy floor becomes very hazardous in these areas, and is difficult to work in.

Wall Construction

- The materials used in construction need to be strong and robust enough to handle the severe knocks received from confined deer.
- A minimum of 2 metres is recommended for gates and internal shed walls to prevent animals from jumping out and escaping.
- Smooth walls with no sharp corners that could cause injury or bruising. Plywood or second hand conveyor belting are good lining products

Internal Race Design

The internal race within a shed is designed to facilitate various treatments so that they occur safely. This includes: TB testing, blood testing, vaccinating, drenching, pregnancy scanning, ear tagging, weighing, etc. The operator is located on the outside of the race to ensure safety and reduce the risk of accidents.

A plastic canvas race curtain is an effective design feature of the internal race as it allows the operators to work on the inside of the curtain beside the race without letting light into the area. The deer are therefore unable to see any escape route.

Please note: this type of race is not recommended for administering treatments to unruly or aggressive stags. These types of animals can deliver severe head butts or injuries to the operator, and should only be treated in a crush or other restraint device that provides total head and body immobilisation.

See diagram below for suggested construction of a plastic canvas race curtain (AgriQuality Safe Practical Deer Yards, 2005).

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The internal race usually leads into a restraint system of some sort.

Ideally the shed should also include a set of scales for weighing individual animals. Weighing produces many benefits to deer management as it is a key measure of productivity, growth and reproductive performance. A good set of scales that are placed in a strategic area of the yards are vital. Numerous systems have been proven to work effectively.

Gates and hinges

- Gates need to be of strong construction and made out of material that won't sag and be robust enough to take severe knocks.
- It is recommended that the panels are smooth, i.e. no gaps, to prevent deer from climbing up them to escape, or get their feet caught.
- Hinges must be strong and secure. To prevent the gate from being lifted off its hinges by milling deer, the top gudgeon should be reversed, or a four inch nail can be driven at right angles above the bottom hinge. Some hinges are constructed with a retaining pin which can be used with or without a padlock.
- Sliding gates made out of a pipe frame and plywood, can also be used in the shed provided they strong and are quick and easy to operate.

Latches

The best features of a latch are that they are:

- Strong
- Quick and reliable to open and close
- Unable to be accidentally opened by deer
- Are not a potential hazard to deer or personnel.
- Wire or chain latches are not recommended as they are too slow to close, and can be a potential hazard if required to be used in a hurry.



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Escape doors

Of most importance is the construction of escape doors. These enable a person to escape quickly and easily from each pen when confronted with a charging or aggressive animal. These doors are narrow to prevent animals from escaping but should not be less than 400mm, so the person using them can escape quickly. These doors are always unlatched and should be placed strategically in the forcing pen and also pens that have no other means of escape. The use of such doors are even more important when flat panels, e.g. plywood, are used as internal shed lining.

Cat walks

On sheds with high roofs, cat walks or suspended walkways can be installed on the outside of pens, or on top of the walls dividing pens. This means the handler does not need to be in contact with the deer, but still provides a means of controlling them. A good tool for moving the deer from pen to pen from these cat walks is to tie a plastic bag to the end of a long (2m) stick. The rustling sound is very effective!

Loading Bay construction

- The load-out chute must be able to accommodate all types of deer transporter to efficiently and safely load deer onto the trailer/truck.
- A height adjustable ramp is useful to be able to meet the floor of different sized the trucks to facilitate loading. It also reduces the likelihood of injury to deer when unloading because deer do not need to jump down to the ground.
- The sides should be solid so that deer can only see straight ahead into the truck.
- A loading chute for antlered stags needs to have special features such as: increased width (at least 2m) to enable a stag to move up the shoot with a full head of antlers, the chute also needs to be height adjustable.

Summary

Safety is the main concern when working with deer within a shed and yard facility, so it is vitally important that the shed is well designed and fit for purpose. It is also important that deer are handled in these facilities efficiently so that it is an enjoyable experience for the operator, and reduces the level of stress on the animals when handled.