Hendra - Property Design

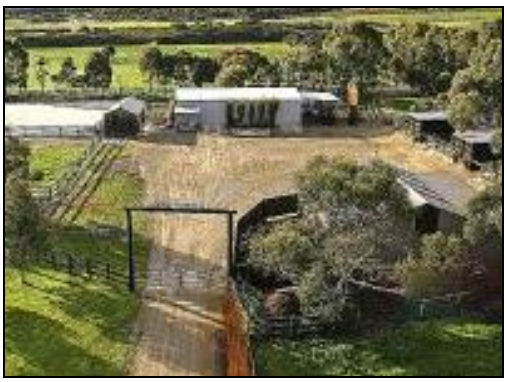
Planning is as important to the person who owns one or two horses as it is to the big breeder. It's about thinking through what you have or want in your facility and then figuring out the best way to get it. The idea is to build what is cost-effective, what gives you the best quality for your money, and what avoids doing something that will cost you a lot more later on. With regard to emerging diseases such as Hendra, but also other diseases and biosecurity issues, property could save your horses life or even your own.

Site considerations

The positioning of yards and stables is vital. The orientation to wind and sun should be considered. The ideal is to capture summer breezes for their cooling effect while avoiding the winter winds. Roofs can be designed to take advantage of the sun's heat in the winter, with overhangs planned to provide shade for a cooling effect during the summer. Good water drainage is also essential for maintaining a healthy stable, as standing water and marshy areas are breeding grounds for insects and disease.

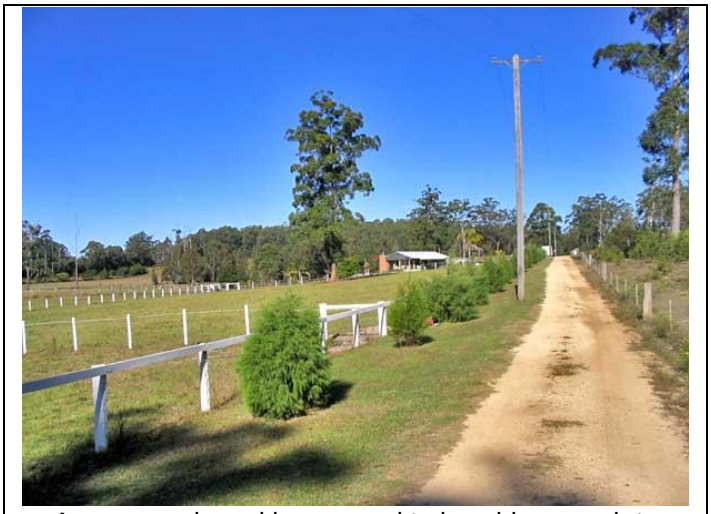
Site layout

The proper layout of any horse facility is a function of many different and unique aspects, all of them affecting the final design. Land area, topography, and local climate will affect what type of stable complex to build and where to put it, where the paddocks are placed, where overnight sheds are placed and how they will be constructed, etc. The plan should have centralised access with lanes and feeder roads going from that access area out to paddocks or stables and yards. This allows owners or managers to control and monitor who and what goes in and out of the property. This area is should be located as near to the front of the property as possible, and be easy to define in the event of a disease outbreak (even just with tape to mark no go areas).



Access roads

It is all too easy, when the time comes to actually start construction of a new facility, to forget about the importance of adequate access for trucks, heavy machinery, horse trailers, etc. It is difficult to anticipate why you might want to get a huge truck into an area that seems to only need access now, during the construction phase. This is where proper planning comes in.



Access roads and lanes need to be wide enough to accommodate heavy machinery

Take the time to work out how you would solve the problem of renovating a pasture with large equipment or how you would take out a tree that becomes a problem later on. The removal or disposal of a dead animal also has to be anticipated. These types of things are difficult to foresee, but count on the need to address them at some point later, after all your fencing is done. Access is an important part of operating and maintaining a horse facility.

Quarantine Area

A quarantine, isolation or sick bay area is essential on large and small properties. If you have new horse/horses come on to your property, to reduce the risk of them introducing a disease or parasite, they should be isolated from the existing horses on the property for least 3 weeks. It can be as simple as paddock with double fencing set a little away from the rest of the horse areas, to a separate stable block. If you have dogs, it should have a mesh perimeter fence to stop them entering the area and possibly transferring disease. The location of this area should be towards the front of the property and preferably have controlled access (a lockable gate) from the rest of the property so that sick horses can be easily moved in. It should also have a separate access from the central access area, so that new or sick horses are clearly cared for separately, preferably last or by separate carers. Vets and carers should not have to go through other parts of the property

to get to these horses and thereby risk the spread of infection throughout the rest of property.

Land clearing

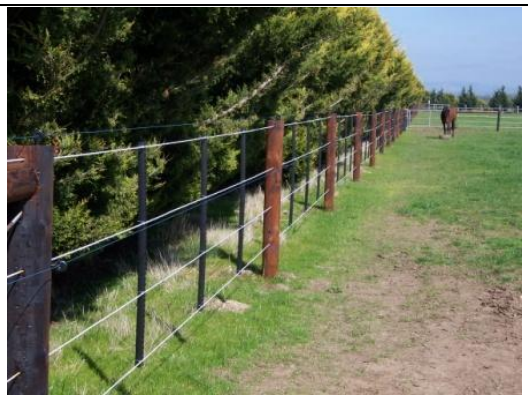
If the property you will be building your horse facility upon is completely covered with trees and brush, the next step is to decide what will stay and what will go. A large degree of foresight is required to visualize the layout of your farm, and not being able to see everything clearly can make this a bit difficult.

Trees are to be treasured, but because of the risk of spillover of Hendra from bats to horses, they should now be positioned away from stables, yards and night holding paddocks. If you are starting from scratch with a new property, try and find an elevated and already cleared area to locate these.

An undesirable tree planting for a horse property
Grove plantings can encourage roosting bats

Trees as a design tool can provide shade for daytime paddocks, serve as windbreaks, and used to screen private areas. If you are on an existing property you should clear flowering or fruiting trees away from your horses night time areas. Design and placement of these areas are crucial, as to make night time holding paddocks as safe as possible, they should not be between areas of high bat activity caused by flowering or fruiting trees. Try to keep these safe or sacrifice areas together so that they won't be contaminated by bats moving from one small feeding area to another.

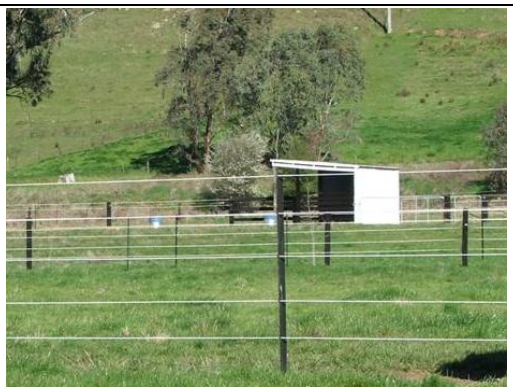
To see what trees are recommended and how to plant those in horse areas see our fact sheet Bats and Trees.



Single line windbreak of trees that don't attract bats

What is a sacrifice area and where do I put it?

A sacrifice area can be anything from a box stall to a pasture. For most horse owners a sacrifice area will be a paddock or yard. It is simply a term used to best describe a small enclosure where you will give up the benefit of grass or vegetation for the benefit of your pastures. Horses should be confined to sacrifice areas when overgrazing presents a threat to pasture grass or during the rainy season when the ground can become sensitive to erosion or compaction.



Strip fencing and Shelter

They may also be the primary living area for horses on very small pieces of property, or the night time holding paddocks on a large operation. Sacrifice areas should be convenient to feed and water sources. It is best if they are on ground that is high and dry, or that has some slope for drainage. Usually on a small property, safety dictates there should be separate pens for each horse. With large horse operations, larger cleared paddocks, with narrow line windbreaks planted around the perimeter, are suitable. Planting grass or vegetation around the sacrifice area allows for natural filtration of surface water run-off. They should also be easy to clear of manure, which should be done on a regular basis. Some people prefer runs attached to the stable where the horses can come and go from their stalls. The benefits of this arrangement are time savings, easy arrangements for horse-sitters if you are away from the property, and freedom for the horse.

How do I design a safe paddock?

The Boundary fence of your property should be a strong stand alone fence which isn't reliant on electric fencing for its durability. Double fencing is recommended, especially on boundary fences and for the interior double fence, electric fencing is ideal. A double fence does not have to be more than 2mtrs wide and can then be used to plant a single line of trees for a windbreak. Horse properties that have single fences and nose to nose contact with adjoining properties risk transfer of disease and will be put under quarantine if the next door property has a notifiable disease such as Hendra. Double fencing is also desirable on some or all internal fences,

not only will it reduce the risk of transfer of disease between horses on your own property, it helps eliminate fence injuries from fighting and playing over fence lines. Many double fences can be used as access lanes. Paddock safety begins with the fencing materials used. Barbed wire is not a good choice for horse fencing, and star pickets should not be used in small enclosures. The preferred choices are wood posts with wooden or metal rails.

Electric hot tape or wire can be mounted on the top rail of the fence to keep horses from leaning over the fence or chewing. If your budget is limited and a large number of wood posts might break the bank, consider the many new products available. Most farm supply stores now carry a range of alternatives that for small properties are cost effective. Electric fencing is ideal for internal double fencing for those on a budget.

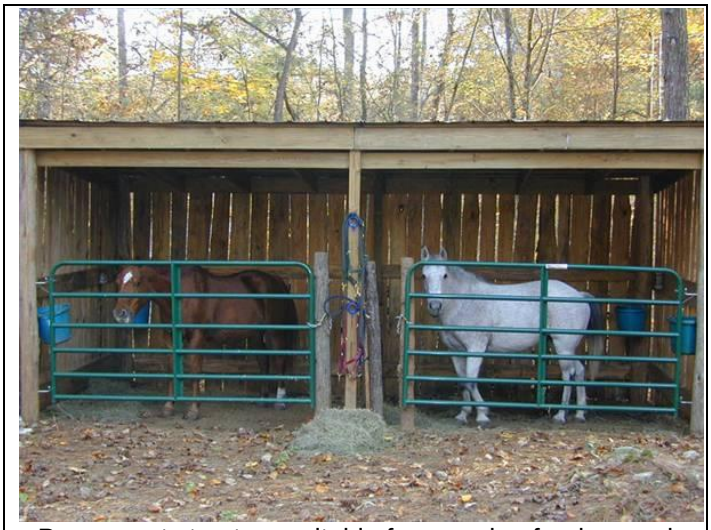
How big should my pastures be?

The amount of land you have available and the needs of your horses will help you determine the best size for your pastures. On smaller pieces of land, consider keeping the pastures smaller to accommodate frequent rotation, which will allow each pasture to re-grow during a resting period. This can also be accomplished by subdividing a larger field with temporary electric hot tape fencing. Young active horses benefit from having sufficient room to run and play. This can be done with ½ acre to 1 acre fields, or even in a long skinny pasture. On larger pieces of land with large numbers of horses night holding pastures could be up to 5-10 acres.

Horse Health Management

Stable blocks with inadequate natural ventilation are a major cause of respiratory problems in horses as dust, odours, and germs cause air to stagnate and become unhealthy.

In designing any stable block consider good natural ventilation to be one of the most important features. Full-view doors and stall fronts not only provide better ventilation, they allow more natural light infiltration and also make it more convenient to see what your horses are doing especially in a broodmare operation. The wider the doorway the easier the access is. Plenty of natural light is also of vital importance. Many of the features that improve ventilation also improve natural lighting and hygiene.



Permanent structure suitable for covering feeders and waterers

All feeders (hay and grain) and waterers should be under cover to avoid contamination from bats or other animals and birds. These covers can consist of permanent structures like sheds or stables, or heavy duty shade cloth temporary structures placed over water troughs and feeding areas.

Temporary structure made of heavy duty ag pipe and shadecloth which could be adapted as a cover for feeders and waterers

Thinking about your properties potential and planning ahead will go a long way to avoid problems occurring in the future.