

Horse Population Management Class Exercise: Scenario A – no management

You are going to monitor the Extension herd, an imaginary free-roaming horse herd. This herd had a population demographic of 1 male: 1 female, where each female has an equal chance of giving birth to a male or female. The grasses on the herd management area can support up to 25 horses.

Year 0: There are 5 female horses and 5 male horses. Female horses have all 4 feet on the ground.

Female horses are kept on the **yellow paper**. Male horses have 1 foot raised. **Male** horses are kept on the **red paper**, for this exercise.

Spring 1: Closing your eyes, collect 1 new horse for each female. Sort them by sex onto the correct paper. Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Spring 2: Closing your eyes, collect 1 new horse for each female. Sort them by sex onto the correct paper. Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Spring 3: Closing your eyes, collect 1 new horse for each female. Sort them by sex onto the correct paper. Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Life is hard on the rangelands. 4 males die from competition. Place them on the BLACK paper. Change your totals.

Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Scenario A – No human intervention

Summer 3

Over the summer, the range can only support 25 horses, and the rest of starvation or dehydration. Alternate between males and females and remove horses until there are only 25. Place these **dead** horses on the **BLACK** paper.

There are now _____ females and _____ males on the range, for a total of _____ horses.

How many horses died? _____

Spring 4: Closing your eyes, collect 1 new horse for each female. Sort them by sex onto the correct paper. Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Life is hard on the range. 3 males die from competition. 2 females die from complications in childbirth. Place these dead horses on the BLACK paper. Change your totals.

Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Summer 4: Over the summer, the range can only support 25 horses, and the rest of starvation or dehydration. **died of starvation.** Alternate between males and females. Remove all horses above 25 and place on the **black** paper. How many died? _____

There are now _____ females and _____ males on the range, for a total of _____ horses.

Spring 5: Closing your eyes, collect 1 new horse for each female. Sort them by sex onto the correct paper. Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Summary:

We started with 5 mares and 5 stallions in Year 0

By Year 5 there were _____ mares (Yellow) and _____ stallions (Red)

How many died because there was not enough food or water (BLACK)? _____

Horse Population Management Class Exercise: Scenario B - Management

You are going to monitor the Extension herd, an imaginary free-roaming horse herd. This herd had a population demographic of 1 male: 1 female, where each female has an equal chance of giving birth to a male or female. The grasses on the herd management area can support up to 25 horses.

Year 0: There are 5 female horses and 5 male horses. Female horses have all 4 feet on the ground.

Female horses are kept on the **yellow paper**. Male horses have 1 foot raised. **Male** horses are kept on the **red paper**, for this exercise.

Spring 1: Closing your eyes, collect 1 new horse for each female. Sort them by sex onto the correct paper. Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Spring 2: Closing your eyes, collect 1 new horse for each female. Sort them by sex onto the correct paper. Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Spring 3: Closing your eyes, collect 1 new horse for each female. Sort them by sex onto the correct paper. Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Life is hard on the rangelands. 4 males die from competition. Place them on the BLACK paper. Change your totals.

Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Scenario B – Removal to holding facilities for adoption

Summer 3

Over the summer, range managers know that times are tough. They are able to round up 3 males and 3 females that look like they could be adopted quickly (gentle, look good, rare color). Place these horses on the **GREEN** paper.

Over the summer, the range can only support 25 horses, and the rest of starvation or dehydration. Alternate between males and females and remove horses until there are only 25. Place these **dead** horses on the **BLACK** paper.

There are now _____ females and _____ males on the range, for a total of _____ horses.

How many horses died? _____

There are 3 females and 3 males in a holding facility (i.e. the **GREEN** paper).

Spring 4: Closing your eyes, collect 1 new horse for each female. Sort them by sex onto the correct paper. Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Life is hard on the range. 3 males die from competition. 2 females die from complications in childbirth. Place these dead horses on the BLACK paper. Change your totals.

Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Summer 4: Over the summer, managers know that times are tough. They round up 10 males and 4 females, and place them in **holding facilities**. Then any horse above 25 total horses **died of starvation**. Alternate between males and females. Remove all horses above 25 and place on the black paper. How many died? _____

There are now _____ females and _____ males on the range, for a total of _____ horses.

How many are in the holding facility? _____.

Spring 5: Closing your eyes, collect 1 new horse for each female. Sort them by sex onto the correct paper. Now there are a total of

_____ female and _____ male horses in the herd, for a total of _____ horses in the herd.

Summary:

We started with 5 mares and 5 stallions in Year 0

By Year 5 there were _____ mares (**Yellow**) and _____ stallions (**Red**)

How many died because there was not enough food or water (**BLACK**)? _____

How many are being held in an off-range facility (**GREEN**)? _____