



Building Your Herd: Example (Version 2)

Bull: CLOVER Herf 253



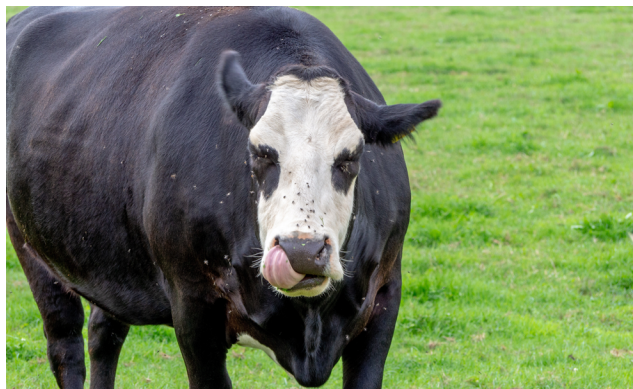
Breed: Hereford

Horns (HH)

Color: red (bb)

Markings: White markings (FF)

Cow: CLOVER AngX 483



Breed: Angus Hereford Cross

Polled (no horns) (hh)

Color: Black (Bb)

Markings: White face (Ff)

White Markings Punnett Square:

Roll the dice to see which instructions your calf will have:

					Bull's Trait White Markings (FF)	
					Dice 1 Value: ____	
					Is it	
					____ Odd ↓	____ Even ↓
					F	F
Cow's Trait Solid Color (ff)	Dice 2 Value: ____	Is it	____ Odd →	F	FF	FF
			____ Even →	f	Ff	Ff

Does the calf have white markings? _____

- If your calf has the traits **Ff**, it will have white markings.
- If your calf has the traits **FF**, it will have white markings.
- If your calf has the traits **ff**, it will be a solid color.



Building Your Herd: Pair 1 (Version 2)

Bull: CLOVER Ang B834



Photo courtesy of American Angus Association

Breed: Black Angus
Polled (no horns) (hh)
Color: Black (BB)
Markings: None (ff)

Cow: CLOVER AngX 483



Breed: Breed: Angus Hereford Cross
Polled (no horns) (hh)
Color: Black (Bb)
Markings: White face (Ff)

Color Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		B	B
Cow's Traits	B	BB	BB
	b	Bb	Bb

Based on the Punnett square what is probability that the calf will be a specific color:

_____ out of _____ that the calf will be black.

_____ out of _____ that the calf will red.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

What color is the calf? _____

- If your calf has the traits **Bb**, it will be black.
- If your calf has the traits **BB**, it will be black.
- If your calf has the traits **bb**, it will be a recessive color like red.

White Markings Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		f	f
Cow's Traits	F	Ff	Ff
	f	ff	ff

Based on the Punnett square what is probability that the calf will have white markings:

_____ out of _____ that the calf will have white markings.

_____ out of _____ that the calf will be a solid color.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have white markings? _____

- If your calf has the traits **Ff**, it will have white markings.
- If your calf has the traits **FF**, it will have white markings.
- If your calf has the traits **ff**, it will be a solid color.

Horns Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		h	h
Cow's Traits	h	hh	hh
	h	hh	hh

Based on the Punnett square what is probability that the calf will have horns:

_____ out of _____ that the calf will have horns.

_____ out of _____ that the calf will be polled (not have horns).

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have horns? _____

- If your calf has the traits **Hh**, it will have horns.
- If your calf has the traits **HH**, it will have horns.
- If your calf has the traits **hh**, it will not have horns.



Building Your Herd: Pair 2 (Version 2)

Bull: CLOVER Ang B834



Photo courtesy of American Angus Association

Breed: Black Angus
Polled (no horns) (hh)
Color: Black (BB)
Markings: None (ff)

Cow: CLOVER Herf 275



Photo courtesy of American Hereford Association

Breed: Hereford
Polled (no horns) (hh)
Color: red (bb)
Markings: White markings (FF)

Color Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		B	b
Cow's Traits	B	BB	Bb
	b	Bb	bb

Based on the Punnett square what is probability that the calf will be a specific color:

_____ out of _____ that the calf will be black.

_____ out of _____ that the calf will red.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

What color is the calf? _____

- If your calf has the traits **Bb**, it will be black.
- If your calf has the traits **BB**, it will be black.
- If your calf has the traits **bb**, it will be a recessive color like red.

White Markings Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		f	f
Cow's Traits	F	Ff	Ff
	F	Ff	Ff

Based on the Punnett square what is probability that the calf will have white markings:

_____ out of _____ that the calf will have white markings.

_____ out of _____ that the calf will be a solid color.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have white markings? _____

- If your calf has the traits **Ff**, it will have white markings.
- If your calf has the traits **FF**, it will have white markings.
- If your calf has the traits **ff**, it will be a solid color.

Horns Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		h	h
Cow's Traits	h	hh	hh
	h	hh	hh

Based on the Punnett square what is probability that the calf will have horns:

_____ out of _____ that the calf will have horns.

_____ out of _____ that the calf will be polled (not have horns).

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have horns? _____

- If your calf has the traits **Hh**, it will have horns.
- If your calf has the traits **HH**, it will have horns.
- If your calf has the traits **hh**, it will not have horns.



Building Your Herd: Pair 3 (Version 2)

Bull: CLOVER Ang R234



Photo courtesy of Red Angus Association of America

Breed: Red Angus
Polled (no horns) (hh)
Color: Red (bb)
Markings: None (ff)

Cow: CLOVER AngX 483



Breed: Angus Hereford Cross
Polled (no horns) (hh)
Color: Black (Bb)
Markings: White face (Ff)

Color Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		b	b
Cow's Traits	B	Bb	Bb
	b	bb	bb

Based on the Punnett square what is probability that the calf will be a specific color:

_____ out of _____ that the calf will be black.

_____ out of _____ that the calf will red.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

What color is the calf? _____

- If your calf has the traits **Bb**, it will be black.
- If your calf has the traits **BB**, it will be black.
- If your calf has the traits **bb**, it will be a recessive color like red.

White Markings Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		f	f
Cow's Traits	F	Ff	Ff
	f	ff	ff

Based on the Punnett square what is probability that the calf will have white markings:

_____ out of _____ that the calf will have white markings.

_____ out of _____ that the calf will be a solid color.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have white markings? _____

- If your calf has the traits **Ff**, it will have white markings.
- If your calf has the traits **FF**, it will have white markings.
- If your calf has the traits **ff**, it will be a solid color.

Horns Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		h	h
Cow's Traits	h	hh	hh
	H	Hh	Hh

Based on the Punnett square what is probability that the calf will have horns:

_____ out of _____ that the calf will have horns.

_____ out of _____ that the calf will be polled (not have horns).

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have horns? _____

- If your calf has the traits **Hh**, it will have horns.
- If your calf has the traits **HH**, it will have horns.
- If your calf has the traits **hh**, it will not have horns.



Building Your Herd: Pair 4 (Version 2)

Bull: CLOVER Ang R234



Photo courtesy of Red Angus Association of America

Breed: Red Angus
Polled (no horns) (hh)
Color: Red (bb)
Markings: None (ff)

Cow: CLOVER Herf 386



Photo courtesy of Henry Elder/Encyclopædia Britannica, Inc.

Breed: Hereford
Horns (Hh)
Color: Red (bb)
Markings: markings (FF)

Color Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		b	b
Cow's Traits	b	bb	bb
	b	bb	bb

Based on the Punnett square what is probability that the calf will be a specific color:

_____ out of _____ that the calf will be black.

_____ out of _____ that the calf will red.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

What color is the calf? _____

- If your calf has the traits **Bb**, it will be black.
- If your calf has the traits **BB**, it will be black.
- If your calf has the traits **bb**, it will be a recessive color like red.

White Markings Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		f	f
Cow's Traits	F	Ff	Ff
	f	Ff	Ff

Based on the Punnett square what is probability that the calf will have white markings:

_____ out of _____ that the calf will have white markings.

_____ out of _____ that the calf will be a solid color.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have white markings? _____

- If your calf has the traits **Ff**, it will have white markings.
- If your calf has the traits **FF**, it will have white markings.
- If your calf has the traits **ff**, it will be a solid color.

Horns Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		h	h
Cow's Traits	H	Hh	Hh
	h	hh	hh

Based on the Punnett square what is probability that the calf will have horns:

_____ out of _____ that the calf will have horns.

_____ out of _____ that the calf will be polled (not have horns).

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have horns? _____

- If your calf has the traits **Hh**, it will have horns.
- If your calf has the traits **HH**, it will have horns.
- If your calf has the traits **hh**, it will not have horns.



Building Your Herd: Pair 5 (Version 2)

Bull: CLOVER Herf 642



Photo courtesy of Rausch Hereford

Breed: Hereford
Polled (no horns) (hh)
Color: Red (bb)
Markings: White markings (FF)

Cow: CLOVER Ang R733



Photo courtesy of Red Angus Association of America

Breed: Red Angus
Polled (no horns) (hh)
Color: Red (bb)
Markings: None (ff)

Color Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		b	b
Cow's Traits	b	bb	bb
	b	bb	bb

Based on the Punnett square what is probability that the calf will be a specific color:

_____ out of _____ that the calf will be black.

_____ out of _____ that the calf will red.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

What color is the calf? _____

- If your calf has the traits **Bb**, it will be black.
- If your calf has the traits **BB**, it will be black.
- If your calf has the traits **bb**, it will be a recessive color like red.

White Markings Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		F	F
Cow's Traits	f	Ff	Ff
	f	Ff	Ff

Based on the Punnett square what is probability that the calf will have white markings:

_____ out of _____ that the calf will have white markings.

_____ out of _____ that the calf will be a solid color.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have white markings? _____

- If your calf has the traits **Ff**, it will have white markings.
- If your calf has the traits **FF**, it will have white markings.
- If your calf has the traits **ff**, it will be a solid color.

Horns Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		h	h
Cow's Traits	h	hh	hh
	h	hh	hh

Based on the Punnett square what is probability that the calf will have horns:

_____ out of _____ that the calf will have horns.

_____ out of _____ that the calf will be polled (not have horns).

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have horns? _____

- If your calf has the traits **Hh**, it will have horns.
- If your calf has the traits **HH**, it will have horns.
- If your calf has the traits **hh**, it will not have horns.



Building Your Herd: Pair 6 (Version 2)

Bull: CLOVER Herf 253



Photo courtesy of Select Sires

Breed: Hereford

Horns (HH)

Color: Red (bb)

Markings: White markings (FF)

Cow: CLOVER Ang B426



Photo courtesy of American Angus Association

Breed: Black Angus

Polled (no horns) (hh)

Color: Black (Bb)

Markings: None (ff)

Color Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		b	b
Cow's Traits	B	Bb	Bb
	b	Bb	Bb

Based on the Punnett square what is probability that the calf will be a specific color:

_____ out of _____ that the calf will be black.

_____ out of _____ that the calf will red.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

What color is the calf? _____

- If your calf has the traits **Bb**, it will be black.
- If your calf has the traits **BB**, it will be black.
- If your calf has the traits **bb**, it will be a recessive color like red.

White Markings Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		F	F
Cow's Traits	f	Ff	Ff
	f	Ff	Ff

Based on the Punnett square what is probability that the calf will have white markings:

_____ out of _____ that the calf will have white markings.

_____ out of _____ that the calf will be a solid color.

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have white markings? _____

- If your calf has the traits **Ff**, it will have white markings.
- If your calf has the traits **FF**, it will have white markings.
- If your calf has the traits **ff**, it will be a solid color.

Horns Punnett Square:

Roll the dice to see which instructions your calf will have:

		Bull's Trait	
		H	H
Cow's Traits	h	Hh	Hh
	h	Hh	Hh

Based on the Punnett square what is probability that the calf will have horns:

_____ out of _____ that the calf will have horns.

_____ out of _____ that the calf will be polled (not have horns).

Dice 1: _____

Dice 2: _____

What instructions does your calf have? _____

Does the calf have horns? _____

- If your calf has the traits **Hh**, it will have horns.
- If your calf has the traits **HH**, it will have horns.
- If your calf has the traits **hh**, it will not have horns.

COLOR YOUR CALF

Let's see what your calf looks like!

Use what you learned above about your calf's color, horns, and markings to show us what your herd's first calf looks like:

