# Farrer White Suffolk Breeding Program

## Video worksheet

[Farrer White Suffolk Breeding Program – Achieving a product of distinction](https://www.youtube.com/watch?v=gmfLWPt8lpE)

**General questions**

Outline the objective of the breeding program at Farrer Memorial Agricultural High School and how they aim to achieve it.

What genetic attributes does Farrer breed for in their White Suffolk breeding program?

List the types of data collected on individual sheep within the breeding program at Farrer.

Describe the program LAMBPLAN.

Define ASBVs.

Describe how ASBVs are used at Farrer within the breeding program.

**Selecting traits**

Explain why low birthweight is a genetic trait that Farrer is interested in monitoring for their flock.

Calculate the following. If an ewe has an ASBV of 0.60 for birthweight and a ram has an ASBV of 0.49 for birthweight, what is the estimated birthweight trait of the progeny?

Calculate the following. If an ewe has an ASBV of 0.60 for birthweight and a ram has an ASBV of -0.16 for birthweight, what is the estimated birthweight trait of the progeny?

Use the previous examples to develop an equation for determining how the progeny estimated data is calculated.

After students make their ideal ram and ewe selections, they input the data to MateSel. Explain why this is an important step in the process.

**Oestrus synchronisation**

The ewes in the Farrer breeding program are artificially inseminated. Students use hormones to manipulate the reproductive cycle of the ewes within the mob. Outline the advantages to the program of using this technique.

Explain the process of oestrus synchronisation and the steps conducted onsite at Farrer for the breeding program.

List the other husbandry activities carried out around the time of oestrus synchronisation activities.

**Artificial insemination (AI)**

Outline the precautions or activities that are conducted to ensure the right semen is placed within the correct ewe.

Describe the process of AI in sheep.

**Lambing**

List the types of data recorded for each lamb during lambing.

**Lamb marking**

Identify when lamb marking is carried out in the breeding program at Farrer.

List the tasks conducted at lamb marking.

During marking, Farrer students collect tissue samples of each lamb. Explain why this is done.

**Shearing**

List the types of data collected during shearing.

Explain the purpose of shearing White Suffolk sheep.

**Muscle scanning**

Farrer breeds specifically for genetic traits that are high muscling and moderate fat. This cannot be seen by visually assessing the sheep. Describe how Farrer tests the lambs for these traits.

Locate the placement on the lambs’ body that the scanning takes place.

Outline why carcase fat depth is an important genetic trait.

Describe what eye muscle depth is and why it is important.

Are negative or positive values important for fat depth and eye muscle depth?

Identify other data collected at this time of year and outline why is it important.

**Sale day**

Explain why sale day is important to the breeding program at Farrer.

**Conclusion**

Use the information from the video to create a calendar of operations for the breeding program at Farrer Memorial Agricultural High School.

|  |  |
| --- | --- |
| Month | Activity |
| January |  |
| February |  |
| March |  |
| April |  |
| May |  |
| June |  |
| July |  |
| August |  |
| September |  |
| October |  |
| November |  |
| December |  |