

INTRODUCTORY ACTIVITY

Agricultural Sustainability



Scan the QR code or click on the [link](#) to view the source material.

▶ **What is Sustainable Agriculture? Episode 1: A Whole-Farm Approach to Sustainability (3:20)**
<https://www.youtube.com/watch?v=iloAQmroRK0&list=PLWlItQ6Oy0zpgxVhd2vZqTDvVXpPhSVd0>

Copy a definition of each of the terms under the relevant heading.

Environmental sustainability

Economic sustainability

Social sustainability

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PRE-RESEARCH QUESTIONNAIRE ACTIVITY

Agricultural Sustainability

Write a statement under each heading about whether you believe alpacas are a sustainable agricultural farming choice in Australia. Provide a reason to support your answer.

1. Is the Australian alpaca industry environmentally sustainable?

2. Is the Australian alpaca industry economically sustainable?

3. Is the Australian alpaca industry socially sustainable?

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SECONDARY SOURCE ONE ACTIVITY

Agricultural Sustainability



Scan the QR code or click on the [link](#) to watch the video, or read the information provided by the Australian Alpaca Association on the following pages.

▶ About the Australian Alpaca Association (0:58) <https://www.youtube.com/watch?v=a7HkV7RG4JE>

From the Australian Alpaca Association:

Alpacas are now an established and beloved part of the Australian natural fibres, breeding and farming industries. As the second largest alpaca industry in the world, following the Peruvian alpaca industry, Australia is at the forefront of breeding, fibre quality and development. We have reached record prices and quality, and are moving from strength to strength, focused on increasing production volumes and improving consistency. The Australian Alpaca Association plays a vital role in the current strength and continued development of the industry by providing education, communication, resources and marketing for the industry as a whole.

The international export demand for Australian-quality alpaca fleece far outstrips supply, so the industry has great potential for further growth. In support, the AAA encourages sustainable husbandry focusing on animal health, breeding programs and herd development.

Building on the strength of the Australian wool industry, the AAA has teamed up with the AWEX (Australian Wool Exchange) to establish quality assurance guidelines for alpaca fleece that are equivalent to the standards of the wool industry. This means consistent classing, packaging and branding of Australian alpaca fleece. This move will enhance the commercial image and guarantee a consistently high-level product through an organised collection system for fleece production.



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SECONDARY SOURCE ONE ACTIVITY

Agricultural Sustainability (cont.)

The Alpaca Lifestyle

Those interested in commercial breeding and farming of alpacas are entering a strong industry that provides support, guidelines and a great reputation. You may choose to focus on alpacas or diversify your current livestock herds by introducing alpacas. These animals mix well with other ruminants and function well as herd guards for smaller livestock. They are sustainable and environmentally friendly, with soft footpads that create minimal soil damage, and their natural fibre further supports the green natural fibre industry. Alpacas are a great green fit for Australia's farming climate, as they perform far better in dry conditions than most livestock. As ruminants, they require only small amounts of supplementary feeding.

The alpaca lifestyle extends in many directions, as alpacas are also ideal for small-scale and home production, where owners of small herds value-add to their fleece by producing fibre products themselves, such as felts and yarns. There are a variety of ways that farmers sell their animals, e.g. via individual private sales, advertising on eAlpaca or other applications, a herd reduction sale or, if there is an intention to leave the industry, a dispersal sale.

The alpaca meat industry is another pathway to commercial alpaca farming and is growing in popularity as alpaca meat is extremely lean, highly nutritious and flavoursome. It is an excellent source of protein with little saturated fat or cholesterol and is environmentally sustainable to produce. Alpacas also offer a high yield with very little wastage.

Alpacas grow fibre that is valued for its luxurious handle and lustre, and in a wide range of natural colours that are unique among commercial fibre-producing animals. However, unlike many other animals, alpacas do not shed their fibre. Also, even when 'bonded' with an accompanying sheep flock and sleeping close by, alpacas will not come into physical contact with them unless forced to do so during yarding. Even then, the risk of fibre cross-contamination is much less likely than from sheepdogs during yard work.

The alpaca does not grow fibre underneath its short tail or in the breech area and avoids contact with its urine and dung pellets by using a crouching method during urination and defecation. Together with almost no grease in its fibre, this means that no mulesing or crutching is required, and fly strike does not occur.

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SECONDARY SOURCE ONE ACTIVITY

Agricultural Sustainability (cont.)

Sustainability Framework

Agriculture is at the centre of many of the sustainability challenges facing the world today, with issues such as animal welfare, land degradation, biodiversity loss, climate change, population growth, water scarcity, and human rights challenging the way food and fibre are produced.

Customers and consumers want to feel confident that the food and fibre they purchase have been responsibly produced.

The alpaca industry in Australia is still in its infancy compared to other farming enterprises and does not share the same level of resources. However, the industry is aware of its impact and are committed to addressing these issues in order to align the alpaca industry with other livestock industries throughout Australia and the world.

The Australian Alpaca Association is developing an Alpaca Sustainability Framework to document how the industry intends to meet its responsibilities and ensure a sustainable future.

The Sustainability Framework will demonstrate to global consumers and manufacturers that members of the Australian Alpaca Association farm their alpacas in a way that is good for people, animals, and the environment.



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SECONDARY SOURCE TWO ACTIVITY

Agricultural Sustainability

Scan the QR codes or click on the links to view each source material below.



» What makes Australia a great home for the Alpaca (1:17) https://www.youtube.com/watch?v=7Xn0fIPE_jk



» Why farm alpacas in Australia? (1:14) <https://www.youtube.com/watch?v=svz2RESTz-U>



» Why Alpaca is the Smart Future for Australia (7:06) <https://www.youtube.com/watch?v=quXELeJl7bc&t=225s>

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SECONDARY SOURCE THREE ACTIVITY

Economic Sustainability



1. Scan the QR code or click on the [link](#) to view the source material.

» What is Sustainable Agriculture? Episode 8: The Economics of Sustainable Agriculture (2:27) <https://www.youtube.com/watch?v=ZwAOZI5dCK0&list=PLWiltQ6OyOzpgxVhd2vZqTDvVXpPhSVd0&index=8>

Using what you've learnt, determine (✓) which category Australian alpaca production falls into:

Unsustainable

Working towards sustainability

Is already sustainable and is seeking to improve.

2. Scan the QR code or click on the links below to access the reading material.



» Alpacas Market Assessment 2016

<https://agrifutures.com.au/wp-content/uploads/publications/17-010.pdf>

Information relating to alpaca economics can be found on pages 1 (Overview), 2 (Production Volumes and Value), 3 (Domestic and Export Markets), 5 (Alpaca Meat Supply Chain) and 6 (CoProduct Potential).



» Alpacas jumper for a Chile journey

<https://www.agriculture.gov.au/about/news/media-releases/alpaca-jumper-chile-journey>

Did You Know?

Including fleece, animal and domestic meat sales, the value of the Australian alpaca industry exceeds \$12 million.

(Source: Department of Agriculture, Fisheries and Forestry, 2018)



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SECONDARY SOURCE FOUR ACTIVITY

Social Sustainability



1. Scan the QR code or click on the [link](#) to view the source material.

» What is Sustainable Agriculture? Episode 4: Social Sustainability (3:24)
<https://www.youtube.com/watch?v=6896Nwydzg0>

Using what you've learnt, determine (✓) which category Australian alpaca production falls into:

Unsustainable

Working towards sustainability

Is already sustainable and is seeking to improve.

2. Scan the QR code or click on the links below to access the reading material.



» Animal Movement Educational (2:14)
<https://www.youtube.com/watch?v=NqbjpoHVIRA>

The Australian Alpaca Association supports new and young farmers by providing several mentoring services. One of these services is a series of handling videos performed by experienced producers.



» Youth
<https://alpaca.asn.au/youth/>

The Australian Alpaca Association has a dedicated area on their website for Youth. Use the QR code or the link to investigate some of the other services this industry provides to support its youth (and all alpaca producers).



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SECONDARY SOURCE FIVE ACTIVITY

Environmental Sustainability



1. Scan the QR code or click on the [link](#) to view the source material.

» **What is Sustainable Agriculture? Episode 6: Sustainable Grazing (2:50)**
<https://www.youtube.com/watch?v=sZeKNWNSM3I&list=PLWlItQ6Oy0zpgxVhd2vZqTDvVXpPhSVd0&index=6>

Using what you've learnt, determine (✓) which category Australian alpaca production falls into:

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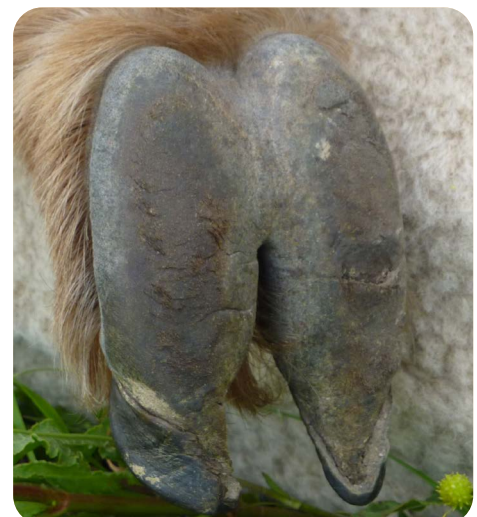
Alpacas and the Australian Environment

Alpacas do less damage than most other farm animals as they have pads, not hooves, so cause little land degradation. Alpacas tend to graze gently, allowing faster pasture regrowth. Their dung makes excellent fertiliser and it is conveniently dropped in areas where they avoid grazing.

Alpacas are undoubtedly the most environmentally friendly of all domesticated animals in Australia. Like all camelids, they do not have hooves but soft padded feet, each with two fairly soft toenails. Their ground foot pressure of 39kPA is much less than sheep (82kPA), cattle (185kPA) and humans (95kPA). Even the kangaroo at 46kPA exerts more pressure on our thin top soils than the alpaca.

Alpacas differ slightly from true ruminants, such as cattle and sheep, because of the structure of their three-compartment stomachs. The alpaca's digestion is adapted to high fibre diets and their dietary efficiency is superior to goats and sheep who share a similar high fibre diet. Although their adult weight of 60-90 kg is greater than sheep, their DSE is between parity and 10% above the merino.

Alpacas place their dung and urine in specific spots and do not graze close to these areas, thus avoiding ingesting internal parasites to which they also have high resistance.



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OPINION ACTIVITY

Meat ‘Pacas

Complete the questions focused on the production of alpacas for meat.



1. What is your opinion about farming alpacas for meat production?

2. Why do you think eating alpaca meat is not as popular or in demand as other types of meat?

3. How would you go about promoting alpaca meat to people? What strategies would you use to increase demand?

4. How does increasing the demand for alpaca meat make the industry more sustainable?

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PEER RESPONSE ACTIVITY

Presentation Feedback

Use this form to provide feedback on another group's presentation.
Be positive and constructive with your advice.

1. Things that are great about this presentation are:

2. One suggestion for improvement is:

3. One question I have about this presentation is:

4. One idea I would 'borrow' and incorporate into my presentation is:

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