

Design Challenge

Imagine you are a farmer trying to make your farm more resilient to changes in the physical environment such as hail, flooding, salinity and heat/drought. Design a plant, animal, technology or structure that can withstand changes in the physical environment and allow you to continue to produce food and/or fibre.

DRAW AND LABEL YOUR DESIGN

WHAT KIND OF FOOD OR FIBRE IS PRODUCED ON YOUR FARM?

CONSIDER THIS:

How could producers protect their crops from heat, storms, floods or extreme weather?

What kinds of crops could producers grow? Could these crops have adaptations to make them more resilient?

How might technology be used to make farms more resilient to the physical environment?

Your design could involve: Planting new or different types of crops that can withstand the impacts of a changing climate, protecting plants or animals grown for food and fibre using advances in technology, growing crops in temperature controlled, sheltered environments, etc.

Resilient Farming

VCDSTC035, VCDSCD039, VCSSU074,
VCSSU075, VCSSU079

CLIMATE RESILIENT LIVESTOCK



Droughtmaster cattle were bred from two different types of cattle to create a breed that can cope well in extreme heat and droughts and is resistant to diseases and pests that are more prominent in hot conditions such as eye cancer and cattle ticks.

CLIMATE RESILIENT CROPS



Drysdale wheat is a type of crop that was developed by Australian scientists by breeding different wheat varieties to produce a 'drought resistant' wheat plant. Drysdale wheat uses water more efficiently as it grows, meaning it can grow in harsh physical conditions such as drought and extreme heat.

INDOOR FARMING SYSTEMS



In some places vegetables are grown indoors to protect them from extreme heat and storms.

TECHNOLOGY IN AGRICULTURE



Robots are used in agriculture for many purposes including:
protecting crops from pests such as slugs, harvesting
crops efficiently to minimise waste and monitoring the soil
to ensure crops grow well.