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YORKE PENINSULA | VISITOR CENTRE

A YEAR ON THE FARM

This handout contains information applicable to the central and southern parts of Yorke Peninsula, South Australia. Farming practices and procedures may be different in other parts of the state and Australia.

Average farms on Yorke Peninsula are around 610 hectares (1500 acres) with farms increasing in size as farmers need larger holdings to support their families in today's economic climate. Just 50 years ago the average farm size was 640 acres – or one square mile.

Farming is a significant gamble each year with no certainty of a successful outcome. The costs involved include machinery, seed, fuel, chemicals and fertiliser, with the average cost of a barley crop being approximately $160 per acre. Weather, price fluctuations and global markets all impact a farmer's income significantly regardless of how much the crop costs to put in. Some years are rewarded with good yields and prices but there are many when farmers struggle to make ends meet and find the capital to plant the next year's crops.

Yorke Peninsula has predominantly alkaline soils with abundant limestone, as can be seen by the numerous stone heaps in the paddocks, local stone houses and stone fences, particularly in the southern part of the region. Yorke Peninsula enjoys reasonably reliable seasons. Rainfall tends to be higher down the centre of the Peninsula, at around 460 mm (around 18 inches) and drops off toward the coast (average 14 inches). Although there is normally some summer rain, the majority is received during cool, wet winters with good opening rains hoped for around Anzac Day, in April. Regular rain is needed until quite late in the season to fill out the grains, making them plump and heavy. By the end of October, early November, farmers welcome the warmth of summer and hopefully, an unhindered harvest.


stone fence

The crop growing process begins in early autumn with many farmers burning the stubble to reduce the volume of straw left from the previous harvest, in preparation for seeding. Burning also destroys weed seeds and kills snails, which are a major problem on Yorke Peninsula as they are ideally suited to our alkaline soil. They eat emerging crops and contaminate grain at harvest time.

A tractor and air-seeder are used for planting seed and fertiliser. Methods have developed over many years but currently no-till is the most popular method of crop establishment. This is 'one pass' sowing, with no prior cultivation to kill weeds; instead chemical is used for weed control. Disc seeders are gaining popularity as they are able to sow through large amounts of stubble residue. GPS controlled auto steer is widely used, with reduced overlap on rows of cropping creating savings in seed, fertilizer, chemical, diesel and machinery hours. It also reduces driver fatigue and allows sowing and spraying to continue at times of poor visibility. Seeding generally commences in early May and is finished by mid June, depending on the season. Dry sowing is becoming more common if rain hasn't occurred by early May. Heavy rollers are often used following seeding to push rocks back into the soil, reducing damage to machinery at harvest time. Pre-emergent sprays are used to stop ryegrass and other weeds from growing. Knock-down herbicides are used to kill weeds that have already emerged.


seeding time

As the new plants emerge, grass and broadleaf weeds in cereal and pulse (legume) crops are sprayed to eliminate competition from weeds and to avoid contamination from weed seeds at harvest time. Fungicides are used when diseases are found in crops, often as the weather warms up in spring. Spray planes are commonly used to apply these. Trace elements and nitrogen fertilizer (in liquid form) can also be applied, usually with a boom spray. Urea, a nitrogen fertilizer (in granular form) is spread to fertilize the crop in areas where the soil is deficient.


shearing time

Shearing takes place all year round, with spring being the most common time. Wool from South Australia is generally sold by auction in Melbourne, currently bringing around 600 cents per kilogram for good quality local fleece wool of around 22 microns. Shearing rates in 2013 are $280 per hundred for flock sheep (rams and stud sheep are more). Crutching also takes place once a year to assist in prevention of fly strike.


lamb marking

Late summer and autumn born lambs are sold in spring, and are commonly referred to as 'prime lambs'. These lambs are generally bred from Merino ewes mated to a British breed ram, such as White Suffolk, Hampshire or Dorset. Many farmers find this a useful cash flow advantage and in recent years prices have been good.

Lamb marking takes place in spring, when lambs are tailed, drenched for worms, vaccinated against common diseases, and ear tagged. Most males are castrated and merino lambs are mulesed to protect against fly strike.


young fox cubs

Fox baiting generally occurs in autumn and spring, and is undertaken by the Northern and Yorke Natural Resources Management Board following strict guidelines. Conditions then are favourable with younger

foxes starting to leave the family group. Foxes not only cause destruction to farm stock but also decimate vulnerable native animal populations.

Hay is cut, raked and baled in spring. Generally hay planted for export is oaten hay but many farmers sow their own mixture of medic, vetch, oats and natural grasses according to their needs. The crop is cut with a slasher or mower / conditioner and left for ten to twenty five days for drying prior to baling. Most farmers have their own technique for identifying when to cut, turn and bale the hay, many of which are methods that have passed down through the family. Some rake several rows together in preparation for baling and some simply rake to turn it, promoting more even drying. If it rains between cutting and baling the rows may need to be raked again.


spontaneous combustion in a hay stack

A mix of large round and square bales are made, though square bales are generally preferred for the export market to China, Japan, Taiwan and Korea. A low moisture content is required to avoid spontaneous combustion and once stacked it is important to monitor the internal temperature of the bales for several months.

'Spray topping' is undertaken on pasture paddocks around this time to prevent grassy weeds setting viable seed, reducing the growth of weeds in future crops. Fungicides are applied to pulse groups including peas, beans and lentils. During a wet winter and spring, spraying can be as often as every twenty days as fungus thrives in damp conditions. Insecticides are also often needed on pulse crops, commonly for native budworm, and can be applied by plane or with a spray unit.

The focus then moves to preparation for harvest, ensuring that harvesters (referred to locally as 'headers'), trucks, augers, bins and windrowing equipment are ready. Fire fighting regulations require a minimum of 250 litres of water to be on site at all times while work is taking place in the paddock. Pumps and hoses must also be in working order.


windrowed canola

Harvesting usually commences in early to mid November on Yorke Peninsula, with the coastal regions the first to ripen. Peas and lentils are desiccated (sprayed with a chemical agent) prior to harvest to hasten and promote consistent ripening and stop weeds setting seed. These are generally some of the first crops to be harvested along with barley and canola.

Windrowing involves cutting a crop quite low and laying it in rows in the paddock to ripen, to protect it from damaging winds that can flatten crops or cause the heads to break off of the stems. Barley is particularly susceptible as the stems are not as strong as on other grains. The small joint where the head meets the stalk tends to be more fragile, though selective breeding of resistant strains is continually developing, windrowing remains common locally. 'Pick ups' are later attached to headers to enable effective reaping from the windrows.


Header about to empty in to a chaser bin

On most farms, large self-propelled headers are used to reap the crop. A new header is a significant investment and can cost more than a family home. Chaser bins, towed by a tractor, are regularly used to unload the header on the go, maximizing the time spent harvesting. Mobile field bins are a common sight in paddocks at harvest time. They are used for temporary storage until the truck returns from the silo for another load.

Timeliness is paramount as crops may be damaged by hot winds, rain or hail. Most crops need to be harvested when their moisture content is below a certain level (for example in barley, 13.5%) with many frustrating hours spent waiting for the moisture levels to come down. Long term storage above this level can not only damage the grains but can also generate heat, causing spontaneous combustion.

Chaff carts are becoming a more common sight on Yorke Peninsula as farmers strive to combat weed problems. The chaff cart is towed behind the header to collect weed seeds (especially ryegrass) and chaff as it leaves the header. This is then dumped in heaps in the paddock and usually burnt at a later date.

Heavy rain during harvest can cause concerning losses to many farmers, at times flattening the whole plant, making it difficult to pick up with the header comb. The grains themselves can become stained or shoot in the head, resulting in a significantly reduced selling price.


loading a truck bound for the silos

Grain marketing has also changed considerably in recent years with the deregulation of the market. The Australian Wheat Board (AWB) and Australian Barley Board (ABB) held a monopoly on the export market for many years. This has now come to an end with many new players entering the market. This new marketing system has challenged farmers to learn new methods to maximize their income, such as forward selling, warehousing grain for later sale and on-farm storage. Crop yields have increased significantly over the past 20 years due to improved varieties and techniques. Fortunately Yorke Peninsula is well served with three terminal ports - Wallaroo, Ardrossan and Port Giles. From these ports grain is exported to many parts of the world.

It's common for farmers to use the services of an agronomist for advice on planning crop rotations, soil improvement, new grain varieties and various other specialised cropping issues. While some agronomists work independently, some are attached to a rural supply and stock agency business. On Yorke Peninsula we are also fortunate to have the knowledge of the 'YP Alkaline Soils Group' who aim to identify, research, demonstrate and promote best practice farming systems in medium rainfall areas with alkaline soils, such as those throughout Yorke Peninsula. 22% of Yorke Peninsula's residents are employed in farming and associated industries.