

These notes are prepared from the *Cattle Handling for schools with Vaughan Campagnolo* workshop, held at Adelaide Showgrounds April 4 & 5 2024, and have been “fact checked” by Vaughan Campagnolo and Dr Mandi Carr.

Short videos demonstrating each step can be found at

<https://www.youtube.com/playlist?list=PLqorqu5JYC42Ev9H-mBhzVmlYhhfu3hKO>

The best strategy for breaking in cattle for showing is to use their natural behaviours, protect their welfare, take your time and keep yourself and your students safe at all times.

These first steps are best done without students present. They will be a distraction for you and the cattle and may not support the low-stress strategies you are aiming for. Introduce students once the cattle and you are confident.

Fitting halters - start with a hackamore (the halter that has a chain under the chin). Fit it with the animal in the cattle crush, but don't use the headbail. Make it as low impact as possible. If the animal drops its head, attach a lead rope to the far side of the hackamore as an extension – see video “Fitting a hackamore in the cattle crush”. Attach a long drag rope (eg 5 metres) of double thickness binder's twine. Tie knots every 50 cm or so for grip and to stop the strands from separating.



Allow the cattle to wander in a large pen with the drag rope attached for a couple of hours, with access to feed and water. Using binder's twine avoids ruining expensive lead ropes and can be cut easily if they become tangled. The cattle will step on their leads at times – this starts the pressure/release process.

After a couple of hours, use the drag rope to tether the cattle – see video “First tie up”. Test if they are ready for this by standing on the end of the drag rope. If they don't pull away, they are ready. Leave the cattle tethered but supervised overnight. They must have enough lead to allow them to sit and relax. Check on them regularly. If you cannot supervise them overnight, leave them untethered but with their halters and drag ropes still in place and tie them up again first thing next morning.

Signs of agitation and stress in the cattle – watch for ears up and back, pulling on the lead. Relaxed animals will be chewing their cud, sitting down, ears will be relaxed and the lead will be slack.

Flight zone – the shoulder is the point of pressure and release. If you step in front of the shoulder, they will retreat = pressure. If you step behind the shoulder, they will move forward = release.

Information on flight zones and point of balance

<https://www.dpi.nsw.gov.au/animals-and-livestock/beef-cattle/husbandry/general-management/handling-cattle>

Pressure/release – use the release as a reward for stepping forward. Using their natural response will result in quieter, more tolerant animals overall. The aim is to gradually reduce the flight zone, so that ultimately you can work up close with the cattle. It will take time. Teach the animal to lead before you teach it to tolerate touch. See video “Pressure and release”.

Tying up – if you tie with the lead high on the rails – we are ready to work (eg grooming). Medium height is for breaking in; low down is for relaxing.

Don’t rush any of the steps – take your time and build your confidence.

After being tied up overnight – use the drag rope in a large pen to start them leading, using pressure on the drag rope, then release once they step forward. Reward them with the release. See videos “Day 2 Progress in the flight zone”, “Day 2 progress leading, pressure/release”, “Day 2 Pressure/release demo”, “Day 2 Reducing flight zone”.

Using water to reduce the flight zone - tether the animal and hose them with water under pressure to desensitise to touch, while maintaining a safe distance for you. Start high on the animal and work your way down. Hose them all over but avoid squirting directly into the ears. See video “Using water to reduce the flight zone”.

Stalls at the Show – use backing boards (4 x 2 timbers) to keep sawdust in order and define your area. Set up your tethering ropes in the rings and leave them there – have a separate set of ropes for leading. Saves time and avoids you having to get in between cattle as much. Use quick release knots – see video “Booker’s quick release knot”.

Nose rings – are strongly recommended by the RAHS Beef Cattle committee. They should be fitted by a vet or an experienced professional. Using pain relief is a desirable option. Use a 2 ¾” bullring. 3” is too big for show steers. After they are fitted, leave them alone for 3-4 weeks (if you can time it to be across school holidays, that works well). After this, start by putting a clip only on the nose ring, no lead rope, to build their tolerance to the sensation. It is not to be used for leading – it is the “park brake” only. Once the cattle are tolerating the sensation, use a short lead rope attached to the nose ring with the main lead rope attached

to the hackamore. At the Show, when leading, all cattle must have these two leads attached. When tethered in the stalls, they must be tethered by two points – the hackamore and a neck strap (NOT the nose ring).

Cattle vital signs – 15-30 breaths per minute; 60-80 heart beats per minute; 58-62 chews per cud for show cattle (lower = low fibre diet, higher = high fibre diet).

Expect 1.2-1.8kg/day weight gain. First 100 days is muscle growth, second 100 days is intramuscular fat.

Work on 2.5-3% of body weight in feed intake. Create a feed plan to account for nutrient levels and finances. Don't allow students to give "treats" to the cattle – create a feed plan and stick to it. Ensure they have adequate scratch factor via good quality fibre. Use cereal hay where possible, not lucerne hay and get a feed test to be sure of nutrient levels. Have a 10-14 day transition period onto a grain based ration, gradually increasing the percentage of grain and reducing the percentage of hay.

	% grain in diet	% hay in diet
Day 1-4	20	80
Day 5-8	40	60
Day 9-12	60	40
Day 13-15	80	20
Day 16 onwards	Final diet	

Shaffer's Formula – if you don't have scales at your site, use Shaffer's Formula to estimate weight.

Calculation of Body weight

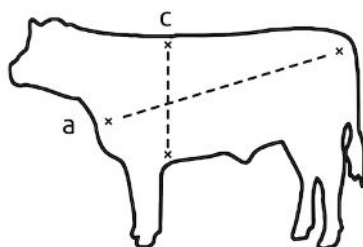
- The body weights of the animals were calculated using Shaffer's formula as described below:

$$B.W (Kg) = \frac{L(G)^2}{300 \times 0.4536}$$

Where,

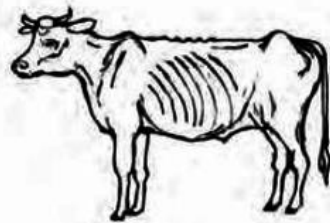
L = Body length in inches from point of shoulder to pin bone

G = heart girth in inches

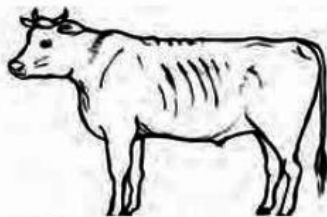


Measuring Beef Cattle

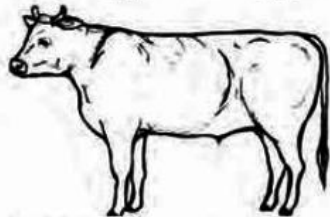
Condition score – aim for 3-3.5 for show steers.



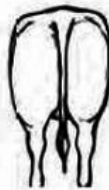
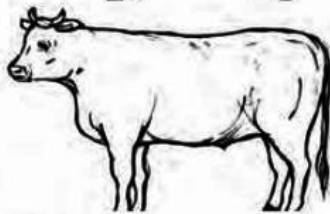
Condition score 1
Backbone prominent
Hips and shoulder bones prominent
Ribs clearly visible
Tail-head area recessed
Skeletal body outline



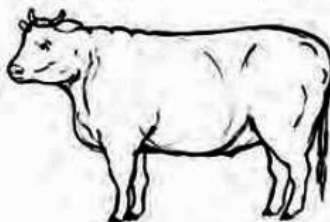
Condition score 2
Backbone visible
Hips and shoulder bones visible
Ribs visible faintly
Tail-head area slightly recessed
Body outline bony



Condition score 3
Hip bones visible faintly
Ribs generally not visible
Tail-head area not recessed
Body outline almost smooth



Condition score 4
Hip bones not visible
Ribs well covered
Tail-head area slightly lumpy
Body outline rounded

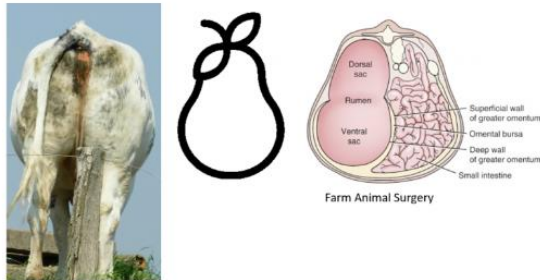


Condition score 5
Hip bones showing fat deposit
Ribs very well covered
Tail-head area very lumpy
Body outline bulging due to fat

Establish a positive relationship with a nutrition expert and a vet early on.

A healthy rumen is the key to overall health. Cattle should be asymmetrical on the LHS (distension of the rumen).

Cattle are usually more pear shaped than anything else.



Watch for warning signs – diarrhoea, undigested grain in manure, lame feet, swollen hocks. These can indicate acidosis – back off the grain and increase fibre intake. The rumen can take days to restore to healthy function so best to avoid problems. Other signs to watch for - discharge from eyes, ears down, dull coat.

Pain relief is a very important strategy to use to assist animals in recovering from any problems. It can support an animal to return to normal eating earlier than without pain relief. At the Show, call a vet early if you have any concerns. Welfare must be the number one priority, not marketing restrictions. Record keeping is key for managing withholding periods.

Water – bring water from home to the show to support animals in drinking immediately. You can add molasses or cordial at school for 14 days prior to the Show, and then at the show to help this. Get them used to the feed tubs and water buckets while at school. Keep as much normality from school to Show as possible.

Paperwork for having cattle at school – you must have Animal Ethics approval to have cattle on site. Contact Dr Sahra McFetridge at Education.AnimalEthics@sa.gov.au. She is also on the AISSA Animal Ethics committee so is the first contact for gaining approval. Allow adequate time for this process – the committee meet regularly but not frequently. You will need to complete the AEC100 form – found on the DfE intranet.

You will need to transfer the cattle on to the school's Property Identification Code (PIC) on the National Livestock Identification Scheme (NLIS) website:

[NLIS | Australia's system for identification and traceability of livestock](https://www.nlis.com.au/)

<https://www.nlis.com.au/>

Paperwork for Showing cattle – as above. Plus RAHS entry forms, usually due June, pestivirus testing, Vendor declaration (NVD) and animal health statement:

[National Vendor Declaration \(NVD\) | Integrity Systems](https://www.integritysystems.com.au/on-farm-assurance/national-vendor-declaration-nvd/)

<https://www.integritysystems.com.au/on-farm-assurance/national-vendor-declaration-nvd/>

All information can be found on the Livestock competitions section of the RAHS website:

[Beef Cattle & Led Steer Competition | Royal Adelaide Show \(theshow.com.au\)](https://theshow.com.au/competitions/livestock/beef-cattle-led-steers/)

<https://theshow.com.au/competitions/livestock/beef-cattle-led-steers/>

Contact Competition Coordinator

Name: Amanda Ford

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Disclaimer: This curriculum resource is designed to support schools in delivering quality food and fibre content to students. It has been developed by Lead Ag Teacher Sue Pratt, AgCommunicators – a registered teacher with more than 30 years' experience in teaching agriculture and science. Prior to using this resource, teachers should conduct a risk assessment in line with their site's curriculum and safety guidelines and check all links are appropriate to the school's online policies. The risk assessment may include provision of specialised Personal Protective Equipment and review of the school's policies and procedures on chemical use.