

**1. Growth Processes in Lambs**

- Lamb growth is when a lamb puts on mass or size throughout its lifetime.
- The target weight for a lamb at birth from an 80kg ewe is from 3.5kg-6kg depending on a single lamb, twins, or triplets.
- Farmers will aim to grow lambs to 40kg before sending them to the freezing works. This will make sure that the carcass weight of the lamb is above 15kg. If the carcass weight is below 15kg farmers will get marked down.
- The growth rate of a lamb changes from farm to farm. 150 grams a day is a good target for farmers. 400 grams a day can be done by using a high-quality feed for lambs.
- Lambs switch from milk to hard/grass feed at around 12 weeks of age. By eating grass lambs gain essential protein, energy, vitamins, and minerals which is essential for lamb growth.
- For lambs to grow they break down cellulose and protein to release amino acids and sugars that the lamb uses to put on muscle mass which increases the lambs' weight.

**2. Drenching Management Practice**

**Drenching Steps:**

1. Thoroughly wash the drenching equipment and check equipment for operational efficiency.
2. Weigh a sample of lambs to find a sample of weights. Make sure you drench to the heaviest lamb to prevent drench resistance from under dosing heavier lambs.
3. Calibrate the drench gun by setting it to the heaviest lamb. To find how much drench the heaviest lamb needs, read the back of the drench packet to find out. Using water, set the drench gun to the correct amount of ml and squirt it into a measuring cylinder 10 times then divide total volume by 10. If it is not the correct amount of liquid adjust the drench gun until the right amount comes out.
4. Screw the drench gun onto the drench drum and prime the drench gun by making sure there are no air bubbles in the tube or drench gun.
5. Put the lambs into a race and go through with the drench gun making sure to drench every lamb to prevent internal parasites such as worms.
6. Once you drench a lamb record the date drenched, animal ID, type of drench, dose rate, weight of animal, batch number, and the expiry date of the drench.

**Dos and Don'ts of drenching**

	
<b>DON'T hold the lambs head up too high or drench will go into the lungs which can lead to death.</b>	<b>DON'T hold the lambs' mouth closed or it could break its teeth.</b>
	
<b>DO calibrate the drench gun, making sure you drench to the heaviest weight.</b>	<b>Do weigh the lambs before drenching so you can drench to the highest weight.</b>

**3. Manakitanga**

Manakitanga is shown when a farmer drenches their lambs to get rid of the sicknesses and make the animals feel better. By doing this the lambs will provide the farmer with more, high quality meat. This happens because the farmer has helped the lamb by drenching it and killing the internal parasites, so the lamb is helping out the farmer because it is healthy and providing more meat output for the farmer to sell.

#### **4. How drenching effects lamb growth**

By drenching lambs, you kill the internal parasites which take up the lamb's nutrients that they get from the grass. Without the parasites lambs grow a lot faster because they are not fighting the parasites to get their energy. Farmers will use several types of drenches such as a dual drench or triple drench to kill the several types of parasites within the lambs. To find out what parasite the lambs have farmers will do a faecal egg count on the lamb's faeces. The four main types of internal parasites are tape worm, hook worm, round worm and whip worm, these parasites can infect vital organs within the lamb such as the gastrointestinal tract, liver, and the lungs. Parasites can stop the lambs from putting on weight because of nutrients loss which effects the lamb's health. Decreased feed efficiency is a result of internal parasites because the parasites compete with the lamb for nutrients, so the lamb needs more feed to thrive. The Barbers pole worm is a blood sucking worm that can cause anemia in lambs. Anemia is caused by loss of blood from the parasites leading to lamb weakness and lethargy. This results in decreased growth as energy is required to replace the lost blood.

#### **5. Drenching Evaluation**

There are good and bad things about drenching for farmers. The benefits on drenching are: the drench kills the internal parasites, such as worms so that the lambs can get all the nutrients they need, Drench can give a higher survival rate in lambs which can lead to a higher profit, more productive lambs, and less labour from dealing with sick sheep. The down sides of drenching are cost of drench (It can cost anywhere from \$500 - \$800 per 15L of drench), drench resistance caused by the wrong drench or under drenching. Drench resistance can lead to worms staying in the lambs and causing health problems such as reduced nutrients intake. More cons to drenching are cost of labour for drenching and time to drench depending on the amount of lambs. In my opinion the pros outweigh the cons so I think the farmer should drench because of increased meat quality and production.

#### **Bibliography**

- OneNote
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