

COURSE PLAN : Artificial insemination and fertility management of livestock



Overview: Max 6 Students, Three Breed'n Betsy Units with three different size non pregnant organs, x8 different types of cervix's and ovaries, Two Water Rectums, 6 Slaughter reproductive tracts(AI, Palpation and Dye checking) Students will AI Average 30-40 live cows correctly, Average 60 times palpation using Breed'n Betsy and passing the gun through all different stages of artificial cervix's, 15 palpation of live animals before insemination starts, 4 days training with optional refresher courses if needed. (the student and teacher will make a decision on the refresher course on the last day of training)

Semen thawing: Aim to teach the four different techniques of thawing used domestic and international.

Thawing methods will be:

Thaw 30 sec at 35-37 Deg mini and Maxi straws (international and Australia), Thaw 7 sec at 35-37 Deg mini straws only (UK) Mini Straws only , Thaw ambient/room temperature 30 seconds (NZ) Not thawing straw, straight in the gun (Ireland).

All thawing with straws will be done with a stop watch.

Time frame: 4 days

DAY 1

Time	Topic or Activity	Course Notes / Resources	Assessment Tools/Activities
9.00am	Overall summary of the next 2 days and the expected outcome of the course. Safety of working with live animals and the care of the welfare of the animal Tour of the training center and what is expected of them What PPE will be required Watch a video on the sexual cycle Cattle Anatomy Artificial Breeding history View and explain organ parts Oestrus hormones	Sexual cycle – Queensland Uni Refer to Breed'n Betsy manual –Reproduction organs Breed'n Betsy Bovine reproduction tips manual PPT presentation PPE students will need to supply *clean overalls *clean gumboots *clean apron	

10.30am	Break for morning tea		
10.45am	<p>Anatomy on real and artificial organs Technique of Breeding cattle Pelvic sweep to locate cervix Structure of the animal internally Locations of the organs and pelvis internal when feeling Learning indirect and retract retraction internally on Betsy Ovary palpation and 21day cycle Cystic ovaries Water Rectum palpation on Breed'n Betsy Artificial Breeding real and artificial tracts on Breed'n Betsy</p>	<p>Breed'n Betsy AI examination Gloves Lubrication</p>	
1.00pm	Break for lunch		
1.30pm	<p>Herding/yarding of animals . Assessing the animal, scraping, cleaning and checking for any discharge, infections and abnormalities (pyometra) Rectal palpation locating the cervix Postpartum & problem cows Animal ethics records Palpation on live animals finding the anatomy i.e cervix, pelvis, uterine horns, ovaries rectal wall, opening of the cervix, body of the uterus x6 cows each student Start Artificial Breeding 1 on 1 with teacher by the end of the day no insemination straw only sheath and insemination gun</p>	<p>Live animals Breed 'n Betsy AI examination Gloves Lubrication Bovine reproduction tips manual</p>	<p>Quiz Animal ethics Cows used each session' Breed 'n Betsy Student Progress sheet</p>
3:00	Afternoon Tea		
3:30-4.00	<p>3.30-4pm Class room chat Hygiene and diseases</p> <p>Summary of the day For next time: Look over the unit information Ovarian and uterine structures during the oestrus cycle Rectal findings during the bovine reproduction palpations</p>		
4.00pm	Conclusion of Day 1		

DAY 2

Time	Topic or Activity	Course Notes / Resources	Assessment Tools/Activities
9.00am	Review the 1 st day and summary of the day Ovarian and uterine structures during the oestrus cycle: Heat Detection Liquid Nitrogen handling and storage Semen identification Semen handling, Semen thawing techniques Thawing and loading straws Inseminating Breed'n Betsy artificial Breeding cervix's x20 times loading and breeding	Bovine reproduction tips manual Breed 'n Betsy PPT presentation	
10.30am	Break for morning tea		
10.45am	Yarding of the animals Palpation in live animals and Breed'n Betsy Indirect and direct retraction of the breeding tract Ovary palpation Artificial Breeding live animals		Animal Ethics Records
1.00pm	Break for lunch		
1.45pm	Dye Check on live organs/slaughter tracts Palpation in live animals and Breed'n Betsy Artificial Breeding till the end of the day Revision on different techniques when breeding live animals on Breed'n Betsy Animal ethics records Summary of 2 days Students should be Breeding cattle by now(some people may take an extra half day) and understand all the critical areas in the Artificial Breeding also the industry The next 3 days should be practice and learning more about problems when inseminating, also more clinical problems that may accrue throughout breeding cattle	Breed'n Bety PPE	Assessment tasks Practical rectal test on ovary palpation (Observation / oral Checklist) Theory quiz
4.00pm	Conclusion of Day 2		

DAY 3

Time	Topic or Activity	Course Notes / Resources	Assessment Tools/Activities
9.00am	Revision Artificial Breeding		Assessor observation
10.30am	<i>Break for morning tea</i>		
10.45am	Artificial Breeding Palpation		
1.00pm	<i>Break for lunch</i>		
1.45pm	Pregnancy diagnosis Breed'n Betsy Pregnancy diagnosis training uteruses Palpation of many stages of pregnancies with Breed'n Betsy Palpation of some later stages of pregnancies in live animals Artificial Breeding		
4.00pm	<i>Conclusion of Day 3</i>		

DAY 4

Time	Topic or Activity	Course Notes / Resources	Assessment Tools/Activities
9.00am	Artificial Breeding		Assessor observation
10.30am	<i>Break for morning tea</i>		
10.45am	Artificial Breeding		
1.00pm	<i>Break for lunch</i>		
1.45pm	Artificial Breeding Summary. If student and teacher are happy with the progress of the training some students can finish this afternoon otherwise another half day will proceed		Quiz Individual Assessment
4.00pm	<i>Conclusion of Day 4</i>		



COURSE PLAN – Pregnancy Diagnosis Reproduction course

Time frame: 3 Days

Overview: Aim over the next 3 days are to understand cattle anatomy, palpation and retraction of non-pregnant organs using Breed 'n Betsy and live animals, learning the various techniques of palpation, also included ovary palpation. Pregnancies from 6wk,7wk,8wk,9wk,12wk,4mth,5mth,6mth 7mth and 8mth using Breed 'n Betsy and live animals. There will be also an introduction with scanning/ultra sound learning on the most common machine used in the world, BCF ESI Scan. Students gain an overview of the scanner, its benefits and limitations both in Breed'n Betsy and live animals. Students will learn: Foetal aging, early stages also late, learning how to size and grid up foetuses, looking at non-pregnant organs, ovaries, infections, and abnormality in foetal developments.

By the end of the course, Students should be competent in identifying pregnancies and non-pregnant cattle, including the different ages of pregnancies and an understanding of cattle reproductive anatomy. Students will also develop a thorough understanding of the range of issues affecting reproduction including: health issues, feeding, nutrition, semen fertility, heat detection, diseases, cystic ovaries, oestrus/ hormones affecting pregnancy, pre and post calving issues, potential causes and fixes for 'problem cows'.

Max 6 Students, Three Breed 'n Betsy Units with three different size non pregnant organs, pregnancy stages 6wk PD ,7wk PD,8wk PD, 9wk PD,12wk PD , 4mth PD, 5mth UA PD,6mth UA PD, 7mth UA PD, 8mth UA PD, x4 different types of cervix's and 21 day cycle ovaries, Two Water Rectums, 5 Slaughter reproductive tracts. Students will Average 50-70 live cows, Average 40 times palpation using Breed 'n Betsy.

Day 1

Time	Topic or Activity	Course Notes / Resources	Assessment Tools/Activities
9.00am	Overall summary of the next 2 days and the expected outcome of the course. Safety of working with live animals and the care of the welfare of the animal Tour of the training center and what is expected of them What PPE will be required Watch a video on the sexual cycle Cattle Anatomy Artificial Breeding history View and explain organ parts Oestrus hormones	Sexual cycle – Queensland Uni Refer to Breed'n Betsy manual –Reproduction organs Breed'n Betsy Bovine reproduction tips manual PPT presentation PPE students will need to supply *clean overalls *clean gumboots *clean apron	

10.30am	Break for morning tea		
10.45am	<p>Anatomy on real and artificial organs Technique of Breeding cattle Pelvic sweep to locate cervix Structure of the animal internally Locations of the organs and pelvis internal when feeling Learning indirect and retract retraction internally on Betsy Ovary palpation and 21day cycle Cystic ovaries Water Rectum palpation on Breed'n Betsy Palpation on live animals.</p>	<p>Breed'n Betsy AI examination Gloves Lubrication</p>	
12.30pm	Break for lunch		
1.30pm	<p>Herding/yarding of animals . Assessing the animal, scraping, cleaning and checking for any discharge, infections and abnormalities (pyometra) Rectal palpation locating the cervix Postpartum & problem cows Animal ethics records Palpation on live animals finding the anatomy i.e cervix, pelvis, uterine horns, ovaries rectal wall, broad ligaments Indirect and direct retraction, non-pregnant animals</p>	<p>Live animals Breed 'n Betsy AI examination Gloves Lubrication Bovine reproduction tips manual</p>	<p>Animal ethics Cows used each session' Breed 'n Betsy Student Progress sheet</p>
3:00	Afternoon Tea		
3:30	<p>3.30-4pm Class room chat Hygiene and diseases</p> <p>Summary of the day For next time: Look over the unit information Ovarian and uterine structures during the oestrus cycle Rectal findings during the bovine reproduction palpations</p>		
3.30pm	Conclusion of Day 1		

Day 2

Time 9.00am	Topic or Activity	Course Notes / Resources	Assessment Tools/Activities
	<p>Review the 1st day short quiz and summary of the day</p> <p>Ovarian and uterine structures during the oestrus cycle also throughout pregnancies:</p> <p>Postpartum & problem cows</p> <p>Retained placenta</p> <p>Acute endomyetritis</p> <p>Therapy for fixing problems</p> <p>Anatomy</p> <p>Herding/yarding of animals .</p> <p>Pregnancy diagnosis training on Breed'n Betsy and live animals</p>	<p>Breed'n Betsy</p> <p>Live animals</p> <p>PPT presentation</p> <p>Bovine reproduction tips booklet</p> <p>Breed'n Betsy pregnancy diagnosis flow chart</p>	<p>Animal ethics Cows used each session'</p> <p>Breed 'n Betsy Student Progress sheet</p>
10.30am	<i>Break for morning tea</i>		
10.45am	<p>Pregnancy stages from 5 weeks to 9 months</p> <p>Palpation in live animals and Breed'n Betsy</p> <p>Indirect and direct retraction of the breeding tract</p> <p>Animal ethics records</p> <p>Using and working with live animals</p>		
12.30pm	<i>Break for lunch</i>		
1.30-3.30pm	<p>Palpation in live animals pregnant and non-pregnant and Breed'n Betsy</p> <p>Indirect and direct retraction of the breeding tract</p> <p>Animal ethics records</p> <p>Introduction to BCF Ultrasound technology- use in cattle grading and looking at different stages of fetus in live animals</p>		<p>Assessment tasks</p> <p>Practical rectal test on ovary palpation</p>
3.30-4pm	<i>Conclusion of Day 2</i>		

Day 3

Time 9.00am	Topic or Activity	Course Notes / Resources	Assessment Tools/Activities
	Review the 2 nd day short quiz and summary of the day Ovarian and uterine structures during the oestrus cycle also throughout pregnancies: Postpartum & problem cows Retained placenta Acute endomyetritis Therapy for fixing problems Anatomy Herding/yarding of animals . Pregnancy diagnosis training on Breed'n Betsy and live animals	Breed'n Betsy Live animals PPT presentation Bovine reproduction tips booklet Breed'n Betsy pregnancy diagnosis flow chart	Animal ethics Cows used each session' Breed 'n Betsy Student Progress sheet
10.30am	<i>Break for morning tea</i>		
10.45am	Pregnancy stages from 5 weeks to 9 months Palpation in live animals and Breed'n Betsy Indirect and direct retraction of the breeding tract Animal ethics records Using and working with live animals		
12.30pm	<i>Break for lunch</i>		
1.30-3.30pm	Palpation in live animals pregnant and non-pregnant and Breed'n Betsy Indirect and direct retraction of the breeding tract Animal ethics records Introduction to Ultrasound technology- use in cattle grading and looking at different stages of fetus in live animals		Assessment tasks Practical rectal test on ovary palpation

3.30-4pm

Conclusion of Day 3