**Diseases Affecting Cattle at Number 9 Dairy**

As is the case with all farming enterprises, cattle are susceptible to a range of diseases caused by microbes, invertebrates and adverse environmental conditions. The principal effects of these diseases include:

* death of valuable animals
* failure to make normal growth
* lowered production
* lowered quality of produce
* failure to reproduce

In practical terms these result in a loss in production. This in turn leads to a loss of income and often an increase in costs as a result of the need to treat the disease.

At number 9 dairy the following diseases are of prime concern.

1. **Mastitis**

Mastitis is an infection of the udder caused by bacteria which gain entry to the mammary glands via the teat canal. ***Clinical mastitis*** causes a number of symptoms in the cow and is readily detectable. ***Sub-clinical mastitis*** does not cause obvious symptoms in the cow and is thus much harder to detect. However, it may lead to significant losses in production and lower the quality of milk.

Use the following websites to find out more about mastitis and complete the activity which follows at the end of this section.

<http://www.dairyaustralia.com.au/Animals-feed-and-environment/Animal-health/Mastitis-2/What-is-Mastitis.aspx>

<http://www.veterinarytechinfo.com/mastitis-dairy-cattle/>

1. **Bovine Johnes Disease (BJD)**

Bovine Johnes Disease is another bacterial disease of cattle. There is no known cure for it.

Find out more about Bovine Johnes Disease using the following websites and then complete the activity that follows at the end of this section.

<http://www.dpi.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/beef-and-dairy-cows/bovine-johnes-disease/what-is-bovine-johnes-disease>

<http://www.animalhealthaustralia.com.au/programs/johnes-disease/what-is-johnes-disease/>

1. **Neospora**

Neospora is a disease that is caused by a protozoan infection. It causes abortion of foetuses in dairy cattle.

Find out more about Neospora using the following website and then complete the activity that follows at the end of this section.

<http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0020/160436/neospora.pdf>

1. **Leptospirosis**

Leptospirosis is a bacterial disease that affects the reproductive system of cattle and causes abortion of foetuses. It can be transmitted from infected cattle to humans, causing severe a severe and debilitating fever. It is amongst the world’s most common diseases that are transmitted from animals to people. These diseases are known as ***zoonoses***. Hence, its prevention is a vital workplace health and safety measure.

Find out more about Leptospirosis using the following website and then complete the activity that follows at the end of this section.

<http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0014/110084/leptospirosis-in-cattle-herds.pdf>

1. **Scours**

Scours is the most common disease affecting newborn calves. Severe cases may result in ill-thrift and even death. Hence prevention of scours is of prime concern on any dairy farm.

Find out more about scours using the following website and then complete the activity that follows at the end of this section.

<http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0015/50208/treating_calf_scours_-_primefact_135-final.pdf>

1. **Bovine Ephemeral Fever (Three Day Sickness)**

Three Day Sickness, as it is commonly known, is a viral disease of cattle that is usually short lived (as the name suggest). Most cattle recover fully from it.

Find out more about Three Day Sickness using the following website and then complete the activity that follows at the end of this section.

<http://www.dpi.nsw.gov.au/agriculture/livestock/health/specific/cattle/bovine-ephemeral-fever>

1. **Bloat**

Bloat is a metabolic disorder of cattle that arises as a consequence of grazing on certain types of pasture.

 Find out more about Bloat using the following website and then complete the activity that follows at the end of this section.

<http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0009/111411/bloat.pdf>

1. **Milk Fever**

Milk Fever is a metabolic disorder that affects cows close to calving time.

 Find out more Milk Fever using the following websites and then complete the activity that follows at the end of this section.

<http://www.dairyaustralia.com.au/Animals-feed-and-environment/Animal-health/Animal-health-fast-facts/Downer-cows/Milk-fever.aspx>

<http://www.dpi.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/beef-and-dairy-cows/milk-fever-hypocalcaemia-in-cows>

1. **Internal parasites**

Internal parasites are various types of worms that invade the body (usually the digestive system). Young animals are usually affected more severely than adult ones.

Find out more about internal parasites using the following website and then complete the activity that follows at the end of this section.

<http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0011/146693/cattle-worm-control-the-basics.pdf>

1. **External parasites**

External parasites are invertebrate animals (usually insects or arachnids) that feed on the outer surfaces of an animal.

Find out more about external parasites using the following website and then complete the activity that follows at the end of this section.

<http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0017/104066/cattle-lice.pdf>

**Activities for you to complete**

Using the websites shown above (and any others that you might like to search out), construct and complete tables to summarise the causes, effects and prevention/treatment of each of the above cattle health problems. Construct your tables as follows as shown. Make a point form summary under the headings given. An example has been completed to guide you.

1. **Infectious diseases**

|  |  |  |  |
| --- | --- | --- | --- |
| **Disease** | **Cause** | **Symptoms/economic impact** | **Prevention/treatment** |
| **Scours** | * viruses
* bacteria,
* protozoans
* internal parasites
 | * diarrhoea
* dehydration
* possible death of calves
 | **Prevention:*** ensure calves get colostrum soon after birth
* clean feeding equipment thoroughly
* provide warm, comfortable housing for calves
* keep housing area clean
* quarantine newly introduced calves
* isolate affected calves
* ensure nutrition is adequate to meet calves needs
* avoid rapid changes in diet

**Treatment:*** identify the cause
* feed an electrolyte solution in addition to the normal milk feed
 |
| **Mastitis** |  |  |  |
| **BJD** |  |  |  |
| **Neospora** |  |  |  |
| **Leptospirosis** |  |  |  |
| **Three Day Sickness** |  |  |  |

1. **Metabolic diseases**

|  |  |  |  |
| --- | --- | --- | --- |
| **Disease** | **Cause** | **Symptoms/economic impact** | **Prevention/treatment** |
| **Milk Fever** |  |  |  |
| **Bloat** |  |  |  |

1. **Parasitic diseases**

|  |  |  |  |
| --- | --- | --- | --- |
| **Disease** | **Cause** | **Symptoms/economic impact** | **Prevention/treatment** |
| **Internal parasites** |  |  |  |
| **External parasites** |  |  |  |