## Antibiotic Use and Animal Welfare at Columbia River Dairy and Six Mile Canyon Farms

While we are committed to using the least amount of antibiotics possible, we also recognize that the complete elimination of their use can result in pain and suffering of the animals that we care for. This tension between responsibly addressing a sick animal and the potential development of antibiotic resistant bacteria (or genes) that can harm the public is something we take seriously. When veterinarians and staff detect bacterial illnesses in a cow or a calf, we always attempt to understand and correct any underlying management (nutrition, housing, genetics, etc.) that may have contributed to the infection. Although prevention of bacterial infections by providing a healthy environment for our cattle is a priority, there will be times when an animal needs to be treated with an antibiotic. The following are important guidelines for the appropriate use of antibiotics at CRD and SMLC.

**Accurately diagnose bacterial infections prior to antibiotic use:** It is important that the use of antibiotics is avoided in non-bacterial conditions, including viral infections. All animals at CRD and SMLC will be thoroughly examined prior to the administration of an antibiotic. For example, a fever and abnormal lung sounds are indicative of bacterial pneumonia, and therefore antibiotic therapy is warranted. Fever and evidence of mastitis or a uterine infection is also an instance where an antibiotic may be used.

**Document antibiotic use and obey withdrawal times:** Whenever an antibiotic is used on an animal, the following will be recorded: cow/calf number, suspected cause of illness, specific antibiotic used, precise dosage and number of treatments given, and any applicable milk or meat withdrawal times.

Assess antibiotic effectiveness: Antibiotics do not always eliminate bacterial infections in animals. Often, this is because the antibiotic cannot effectively reach the site of infection. Sometimes it is due to bacterial resistance to a specific antibiotic. All animals that are treated with antibiotics will be examined and monitored for improvement. A reduction in fever can be a sign that the antibiotic is working. Generally, if there is no improvement in the condition of the animal after two or three days then the antibiotic should no longer be used. If an animal is non responsive to a number of antibiotic treatments, euthanasia should be considered as a humane alternative.

When considering antibiotic use always comply with the following principles and protocols:

- 1. Identify and correct contributing factors to infections.
- 2. Use preventive antibiotics judiciously and document usage.
- 3. Make science and evidence based decisions when considering antibiotic use and determining effectiveness.