



DIRECTIONS FOR ADMINISTERING FIRST DEFENSE®

Directions

One **First Defense**® bolus should be given to each calf within the first 12 hours after birth and used in conjunction with good colostrum feeding and calf nutrition programs. If the calf is not expected to receive colostrum either directly before or after administration of the bolus, lubrication of the bolus with vegetable or mineral oil is recommended. Beef producers should be especially mindful of this recommendation. To administer, remove a **First Defense**® bolus from its blister pack by tearing off the foil backing and follow these recommended instructions*:



Step 1

Place the large end of the bolus in a dosing gun (5/8"/16mm opening) until firmly seated. Avoid guns with internal flanges or undersized openings, which may fracture the bolus shell, or oversized openings, which could allow the bolus to slip. **For best results, use the correct-fitting First Defense® dosing gun.**



Step 2

Restrain the calf and grasp under the jaw to raise its head. Gently pry open its mouth and place the dosing gun containing the bolus into the back of the throat. Administer the bolus as close to the esophageal opening as possible. Use caution to avoid delivery to the trachea.



Step 3

To assist passage of the bolus down the esophagus and to stimulate a swallowing reflex, stroke the surface of the tongue or the outside of the throat. Whenever possible, bottle feed or allow the calf to suckle immediately after administering the bolus. If tube feeding the calf, it is recommended to administer the bolus after the feeding. A bolus may block the airway if not properly administered, or if not swallowed by the calf, so watch for signs of breathing difficulty after administering the bolus. If the calf shows signs of choking or suffocating, immediately manipulate its body to dislodge the bolus.



Step 4

The dosing gun should be cleaned and dried immediately following administration of bolus to each calf.



*Alternatively, the contents of the bolus may be emptied and dissolved in warm water, milk replacer or colostrum and fed to the calf.