Growth-stimulating implants offer the commercial cow-calf producer a fast, easy-to-use method of increasing the weaning weight of calves when used correctly. Implants are placed under the skin on the back of the ear. They exert a positive effect by increasing the calf’s natural production of growth hormone and insulin, resulting in increased formation of muscle tissue and decreased fat. Growth hormone is produced by the pituitary gland and is an important regulator of growth.

To get the full benefit of implants, follow the directions on the label and use implants correctly. Generally, male calves should be implanted when they are castrated. **Do not** implant bull calves that are intended for breeding. Implanting bulls can retard the development of the reproductive organs, thus causing them to be less fertile.

Implants must be administered properly. The potential benefit of implants cannot be realized if they are not properly administered. In addition, a calf with an improperly placed implant runs the risk of having residues when slaughtered.

**Administering Implants Correctly**

1. Properly restrain the animal.
2. Determine which ear to implant, position the implant instrument so the needle can be positioned next to and parallel to the ear with the slant side of the needle facing outward. (Implant all calves in the same ear to minimize confusion).
3. Select the proper implant site on the back of the ear (Figure 1). Place the implant between the skin and cartilage in the middle third of the ear.
4. Clean the needle and implant site with a disinfectant to reduce contamination of the needle wound. (Use a tray and sponge to lay the implant gun on).
5. Grasp the ear with one hand while the other hand positions the instrument parallel to and nearly flush with the ear. Put the point of the needle against the ear with the beveled part facing outward.
6. Use the tip of the needle to prick the skin. Then, lift slightly to completely insert the needle under the skin.
7. Depress the plunger of the implant gun and withdraw the needle.
8. Feel the ear for the implant under the skin to see that it is inserted properly.

**Precautions to Take When Implanting Cattle**

1. When the ear is grasped and the needle inserted, the animal may throw its head. This can be prevented by using a nose lead, halter, or a headgate equipped with a head and nose bar.
2. Avoid piercing or cutting ear veins with the needle.
3. Do not allow the needle to gouge or pierce through the cartilage. If there is resistance when inserting the needle, it is quite probable that the cartilage has been gouged. Pellets may be covered with scar tissue and walled off, resulting in poor drug absorption and decreased gain.
4. Never sacrifice a careful implantation technique for speed.

![Figure 1. Implant location](image-url)
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