***Advantages and Disadvantages of Dehorning and Disbudding Techniques***

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| **Techniques** | **Description** | **Advantages** | **Disadvantages** |
| **Caustic Paste Disbudding** | The combination of caustic substances in dehorning paste cauterizes tissue and prevents horn growth. Before the paste is applied a ring of petroleum jelly is applied around the horn to prevent the paste form sliding into the calf`s eye. Dehorning paste is applied to the **horn buds**of calves eight weeks of age or younger. | * Bloodless non-invasive
* Less painful than hot-iron disbudding.
* Less risk of injury to the calf handler.
 | * Calf cannot be exposed to rain or allowed near other animals for six hours
* Cannot be used in calves over eight weeks of age.
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| **Hot-Iron Disbudding** | An iron is heated to red hot, then held firmly to the horn bud for about 20 seconds, destroying the horn-producing cells and preventing further growth.In kids, the hot iron is left for 15seconds to avoid frying the brain (terminal meningitis) | * Bloodless
* Can be used in calves up to four months of age.
 | * More painful for the animal than caustic paste
* Iron may fail to get back up to heat between calves resulting in ineffective disbudding
* Requires more physical restraint of animal than paste disbudding
* Poses a risk of injury to the handler.
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| **Knife Dehorning** | In this dehorning method, a knife is used to cut away skin around and under the horn bud, surgically removing the horn from the base tissue. | * Effective on very small horns.
 | * Bloody
* Painful
* Poses risk of injury to the animal and handler.
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| **Tube Dehorning** | A circular blade is pushed into the skin around the horn bud, then rotated and tilted to gouge out the horn. | * Effective on very small horns.
 | * Bloody
* Painful
* Poses risk of injury to the animal and handler.
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| **Barnes or “Gouger” Dehorning** | A Barnes dehorner is a hinged, closed set of sharp scoops which is placed over the horn against the base and surrounding skin. Opening the handles forces the cutting edges together, slicing through the skin and under the horn. | * Several instrument sizes available.
 | * Bloody
* Painful
* Poses risk of injury to the animal and handler.
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| **Keystone or “Guillotine” Dehorning** | A keystone dehorner has two handles that move a blade downward against a plate or another blade, slicing through the base of the horn and surrounding skin. | * Can be used in older cattle with large horns.
 | * Greater risk of exposed sinus infection and blood loss
* Painful
* May lead to set-backs in overall health and performance, including weight loss.
* Requires follow-up care poses risk of injury to the animal and handler.
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| **Gigli Wire Dehorning** | A long piece of wire is attached to two handles, then moved back and forth rapidly to saw through the horn base plus a ½-inch circle of skin. | * Can be used to remove horns in older cattle.
 | * Greater risk of exposed sinus infection and blood loss
* Painful
* May lead to set-backs in overall health and performance, including weight loss and requires follow-up care poses risk of injury to the animal and handler.
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| **Hand Saw Dehorning** | In this method of dehorning, a hand saw is used to remove the horn along with a ½-inch ring of skin around the horn base. | * Can be used in older calves with large horns.
 | * Risk of infection and death from blood loss
* May lead to set-backs in overall health and performance, including weight loss
* Animal must be monitored for several days afterward.
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| **Callicrate Bander** | * The loop is placed over the horn furthest from you. Then the bander and the loop are pulled towards the applicator. This will keep the loop close to the head and in the hairline at the horn base. Tension the loop until the tension indicator moves all the way back to the scribed line. Cut the loop as close to the spool as possible.
* Figure eight duct tape around the horns.
 | * Can be used in older cows with very big horns
* Procedure is blood less
* There is no exposed sinus to worry about.
 | * Horn is not removed immediately, it falls or about 8 weeks after procedure is completed
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Reference: http://www.dehorning.com/