

NEW

CattleZen™

delivers a patented pheromone blend in a single dose
for a fast-acting, long-lasting calming effect.

**SUPPRESS
THE STRESS
WITH EVERY BREATH**

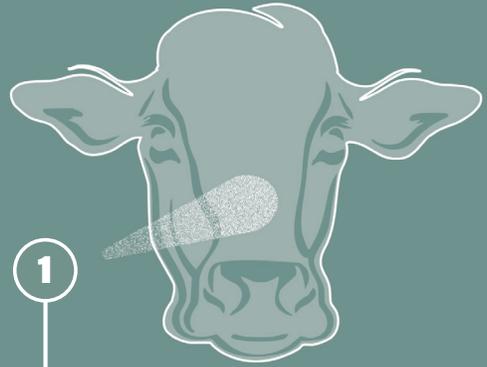


solvvet™
Innovation by Request
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Stress response in cattle is physiological

STEP 01. Apply CattleZen on the skin above the muzzle



Apply **CattleZen** topically above the muzzle to be locally absorbed by the vomeronasal organ located in the nasal cavity.

Why Cattle Producers Trust CattleZen



Enhanced cattle welfare and safety

Minimizes the impact of stressful events, and improves safety for both animals and handlers



Patented pheromone blend

Delivers fast-acting and sustained calming through the animal's sensory system

Cattle are exposed to many stress factors. Any of the following stress factors can have a negative effect on cattle of any age.

Common stress factors

in cattle-dairy operations

- ① weaning
- ① dehorning
- ① banding and castration
- ① branding
- ① training heifers to be milked
- ① vaccination

in stocker/feedlot operations

- ① commingling
- ① transport/arrival
- ① processing
- ① reimplantation
- ① revaccination
- ① sorting

These practices trigger a **threat perception** in the animal which elevates stress levels causing negative physiological responses. So, how can we effectively downgrade the threat level in cattle?

Brain power

Threat perception resides in the brain but its effects ripple through the body affecting the cattle's welfare.

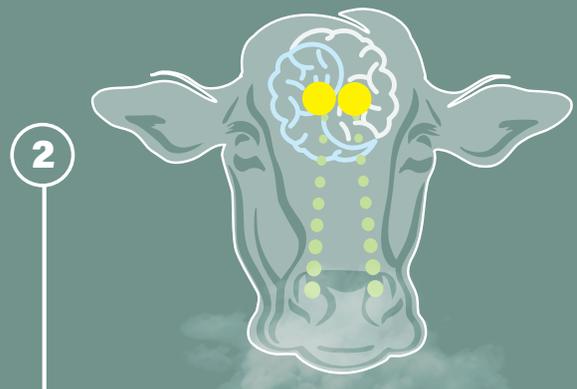
The amygdala plays a key role in determining the perception of whether the situation is safe or dangerous. The animal reacts quickly to potential threats in its environment. This response is physiological. Threat perception activates the hypothalamic-pituitary-adrenal (HPA) axis thus leading to increased release of the glucocorticoid hormone cortisol from the adrenal glands and increased release of the catecholamines epinephrine and norepinephrine.

Thus, threat perception in cattle leads to elevated inflammation and immunosuppression resulting in increased risk for BRD, decreased DMI, weight loss, energy inefficiency, increased morbidity and mortality.



Response to mBAS is also physiological

STEP 02. Calming pheromones are inhaled by the animal



The blend of synthetic analogue Maternal Bovine Appeasing Substance calming pheromone is then inhaled to stimulate the vomeronasal gland to desensitize regions of the amygdala and the hypothalamus (areas indicated by the two yellow dots) to decrease the perception of threat when cattle are exposed to stressful situations.



Easy, effective, single-site application

High-concentration, lower-volume dose for strong detection and consistent results



Supports performance and profitability

Affordable stress-management solution that supports more consistent feed intake, improved health and performance

Maternal Bovine Appeasing Substance (mBAS) pheromones mimic naturally occurring pheromones that are secreted by the skin of the mammary gland of lactating animals, providing a soothing, calming effect by reducing stress in all treated cattle.

CattleZen is a blend of the synthetic analogue of Maternal Bovine Appeasing Substance (mBAS) calming pheromone that is administered topically above the muzzle to be locally absorbed by the vomeronasal organ located in the nasal cavity.

CattleZen's mBAS pheromone mediated stimulation of the vomeronasal gland desensitizes regions of the amygdala and the hypothalamus, thus decreasing the perception of threat by the animal.



Post-weaning, **CattleZen** has been proven to help support calves through stressful periods with reduced bawling, an indicator of stress response commonly observed with weaning.¹

1. Efficacy of Topical Pheromones in Stress Reduction of Calves Separated at Weaning. Study No. AVL 25-09-21.

This reduction in threat perception leads to:

- ① reduced flight behaviour
- ① lower levels of cortisol
- ① maximized performance
- ① decreased inflammation
- ① minimized morbidity and mortality

Conclusion

When possible, prioritize cattle welfare by applying **CattleZen** prior to stressful events to help them respond better to stress and thus enhance the operation by supporting performance and maximizing profitability.

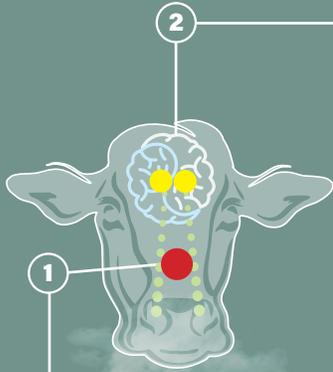
Help mitigate the negative impacts of cattle stress. Choose CattleZen.

CattleZen™

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Patent CA2849279C

CattleZen is a topically administered pheromone blend of Maternal Bovine Appeasing Substance (mBAS) that is locally absorbed by the vomeronasal organ located in the nasal cavity.

Application of CattleZen



The synthetic analogue of Maternal Bovine Appeasing Substance calming pheromone blend stimulates the vomeronasal gland to desensitize regions of the amygdala and the hypothalamus (areas indicated by the two yellow dots) to decrease the perception of threat when cattle are exposed to stressful situations.

**ONE SINGLE DOSE.
ON A SINGLE SPOT.**

Apply **CattleZen** topically above the muzzle (target area represented by the red dot).

BENEFITS



Enhanced cattle welfare and safety



Patented pheromone blend



Easy, effective, single-site application



Supports performance and profitability

CattleZen is available in a 250 and 1000 mL multidose bottles.

Solvat Code	Description	VP	WDDC	AVP	CDMV
900356	CattleZen • 250 mL	8334730	145248	5630240	130697
900355	CattleZen • 1000 mL	8334731	145249	5630241	130698

For more information, please consult product insert.

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To learn more about bovine health products available at Solvet, go to solvet.ca or **CONTACT YOUR SOLVET TERRITORY MANAGER**



ACTIVE INGREDIENT

CattleZen contains 139.4 mg/mL (13.94%) of Maternal Bovine Appeasing Substance analogue calming pheromone blend.

INDICATIONS

CattleZen is recommended for use on healthy cattle for maintenance of balanced behaviour and prior to environmental stressors such as handling, transportation, temperatures (high or low), mixing animals, vaccination and ear tagging.

DOSAGE AND ADMINISTRATION

Cattle

For cattle weighing greater than or equal to 200 lb, apply a total dose of 5 mL to the skin above the muzzle.

For cattle weighing less than 200 lb, apply a total dose of 3 mL to the skin above the muzzle.

Apply as a single dose.

Always shake bottle before application.

STORAGE

Store at room temperature (10 °C - 30 °C).
DO NOT REFRIGERATE OR FREEZE.

**Choose CattleZen,
new from Solvet.**

