



Visual and tactile contact in individually housed calves



Picture: Fusi, IZSLER



Introduction

Council Directive 2008/119/EC requires to allow direct visual and tactile contact between calves in individual pens. Depending on structural features of partitions between pens different levels of restriction of visual and tactile contact may be experienced by calves (e.g., contact depends on body posture of calves; body parts that can be involved in contact; possibility of simultaneous visual and tactile contact). However, most of the behaviours described in the **Thematic Factsheet 'Visual and tactile contact in individually housed calves'** that are considered important for normal development (e.g., licking, mounting, head butting, running, chasing) are not permitted in individually housed calves, or are at least strongly restricted.



Legal requirements

Council Directive 2008/119/EC of 18 December 2008 lays down the minimum standards for the protection of calves.

'This Directive lays down the minimum standards for the protection of calves confined for rearing and fattening.'

(Article 1)

'calf' means a bovine animal up to six months old' (Article 2, Paragraph 1.)

'no calf shall be confined in an individual pen after the age of eight weeks, unless a veterinarian certifies that its health or behaviour requires it to be isolated in order to receive treatment. (...) Individual pens for calves (except those for isolating sick animals) must not have solid walls, but perforated walls which allow the calves to have direct visual and tactile contact'

(Article 3, Paragraph 1.(a))



Method

Individual pens (indoor) or hutches (outdoor) for housing calves may fully or partly restrict visual and tactile contact due to the presence and design of front, back and side walls.

Structural features of such pens or hutches determine whether an individual calf can establish visual contact and if so the amount of physical effort needed. Tactile contact depends on the neighbouring calf's location which is why an individual calf is never in full control over establishing tactile contact. The quality of both visual and tactile contact depends on the design of individual pens or hutches. Consequently, the 'level of restriction' imposed on the animals by the housing system as compared to unrestricted contact in social housing of calves should be assessed.

- Five categories can be used to classify the levels of restriction of visual and tactile contacts: Level 1 – none, 2 – slight, 3 – moderate, 4 – strong, and 5 – complete restriction. From a welfare point of view, visual and tactile contact should not be restricted beyond level 3 – moderate restriction. At this level it is acknowledged that an animal has to put some effort into initiating contact, however, no constraining body posture, pain or distress is experienced by the calf.
- Additionally, for establishing visual contact a calf must be able to do so largely independently of the position of other calves (i.e. have nearly full control over initiating contact and thus see most of the adjacent pen(s) when standing in the activity area) and for tactile contact calves can lick each other partly in the head/neck region and possibly at other body parts.

Description of levels of restriction of visual contact

Level of restriction of visual contact	Example
<p>1 – none</p> <p>Visual contact can be established independently of contact seeking by neighbouring calves E.g., visual contact through a wire grid partition wall – the calf can have full view of other calves through the wire grid, independently of its position/posture or the position/posture of the other calves</p>	 <p>Picture: Schenkenfelder, BOKU</p>
<p>2 – slight</p> <p>Visual contact can be established independently of other calves' position/posture but the animal is required to actively take a neutral standing posture E.g., perforated partitions along the whole side wall starting from shoulder joint level upwards – the calf has a full view of the other pen when standing in any part of its own pen</p>	 <p>Picture: Waiblinger, Vetmeduni Vienna</p>
<p>3 – moderate</p> <p>Visual contact can be established when the animal is active, i.e. in a neutral standing posture (head at the height of the back line, no specific head position needed) but needs to position itself in specific zone of its pen and visual contact is largely independent of the other calves' position/posture E.g., hutch with front yard of equal size or with perforated partitions at least from shoulder height upwards – there can be some positions/postures of the other calf that hinder visual contact but other calves are visible in many different positions and postures</p>	 <p>Picture: Schenkenfelder, BOKU</p>
<p>4 – strong</p> <p>Visual contact can be established but depends largely on the position/posture of other calves and/or the animal must adopt a strenuous (uncomfortable, constraining, painful or distressing) posture E.g., visual contact through perforations in partition wall either above head or below knee height – calf is required to adopt uncomfortable posture and/or the calf has only a limited view of the other pen(s)</p>	 <p>Picture: Fusi, IZSLER</p>
<p>5 – complete</p> <p>Complete restriction: visual contact is impossible, independently of the effort made by the calf and/or the neighbouring calf E.g., visual contact cannot be established through solid walls</p>	 <p>Picture: Schenkenfelder, BOKU</p>

Recommendation for inspection

To objectively assess the level of restriction of visual contact for calves housed in pens or hutches, each wall is separately scored before merging the results to give an overall classification of the pen/hutch. Each type of pen/hutch needs to be assessed separately to achieve a farm classification.

Level of restriction of visual contact	Front wall	Side walls	Back wall	Front yard	Overall result
1 Calves can establish visual contact without effort and independently of the position or behaviour of other calves	<input type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Calves can establish visual contact only if they adopt specific but neutral posture and independently of the position or behaviour of other calves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Calves can establish visual contact only if they adopt specific but neutral posture and need to position themselves in specific zone of pen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Calves can establish visual contact only if they adopt specific and strenuous body posture (contact may be related to the position of the other calves or not)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Calves cannot establish visual contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Pen/hutch classification = lowest level of restriction (on the scale 1–5) achieved in any overall result²

¹Check the relevant box.

²In case a farm uses only one unique type of pens/hutches this result gives the farm classification. If a farm uses different types of pens/hutches, farm classification equals the highest level of restriction (on the scale 1–5) assigned to a specific pen/hutch type.

Instructions for assessment

- The 'pen's visual contact restriction' reflects the combination of the front + side + back walls' restriction + spatial distribution of the pens + pens' occupation
- Step one: assess the front wall's level of restriction of visual contact
- Step two: assess the side walls' level of restriction of visual contact
- Step three: assess the back wall's level of restriction of visual contact
- Step four: if the hutch has a front yard, assess the front yard's level of restriction of visual contact
- Step five: combine the results of the walls to obtain the pens' overall result in the last column

Description of levels of restriction of tactile contact

Level of restriction of visual contact	Example
<p>1 – none</p> <p>No restriction of tactile contact can only be achieved in social housing systems (group or pair housing) – Level 1 not applicable in individual housing systems</p>	 <p>Picture: Schenkenfelder, BOKU</p>
<p>2 – slight</p> <p>Calves can put their heads together and lick each other in the full head and partly neck region and possibly at other body parts (flank, back) and can display some social play elements (head to head pushing, rubbing), although both are restricted as compared to social housing</p>	 <p>Picture: Schenkenfelder, BOKU</p>
<p>3 – moderate</p> <p>Calves cannot put their heads together but can lick each other at parts of the head/neck region and possibly at other body parts (flank, back); social play is very limited</p>	 <p>Picture: Waiblinger, Vetmeduni Vienna</p>
<p>4 – strong</p> <p>Calves can only touch small parts of the other calf's body with part of their muzzle or tongue and/or have to adopt a strenuous position to establish contact</p>	 <p>Picture: Schenkenfelder, BOKU</p>
<p>5 – complete</p> <p>Tactile contact is impossible</p>	 <p>Picture: Schenkenfelder, BOKU</p>

Recommendation for inspection

To objectively assess the level of restriction of tactile contact for calves housed in pens or hutches, each wall is separately scored before merging the results to give an overall classification of the pen/hutch. Each type of pen/hutch needs to be assessed separately to achieve a farm classification.

Level of restriction of tactile contact		Front wall	Side walls	Back wall	Front yard	Overall result
1	All calves are reared in social housing systems (group or pair housing)	Not applicable as the directive only considers individually housed calves with respect to visual and tactile contact				n/a
2	Calves can put their heads together and lick each other in the full head/partly neck region (possibly at other body parts); minimal social play possible	<input type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Calves cannot put their heads together but can lick each other partly in the head/neck region (possibly at other body parts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Calves can touch only the muzzles or small parts of the others body	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Calves cannot establish tactile contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Pen/hutch classification = lowest level of restriction (on the scale 1–5) achieved in any overall result²

¹Check the relevant box.

²In case a farm uses only one unique model of pens/hutches this result gives the farm classification. If a farm uses different types of pens/hutches, farm classification equals the highest level of restriction (on the scale 1–5) assigned to a specific pen/hutch type.

Instructions for assessment

- The 'pen's tactile contact restriction' reflects the combination of the front + side + back walls' restriction + spatial distribution of the pens + pens' occupation
- Step one: assess the front wall's level of restriction of tactile contact
- Step two: assess the side walls' level of restriction of tactile contact
- Step three: assess the back wall's level of restriction of tactile contact
- Step four: if the hutch has a front yard, assess the front yard's level of restriction of tactile contact
- Step five: combine the results of the walls to obtain the pens' overall result in the last column

Exceptions

- To be assessed as complete restriction of tactile contact:
 - Calves are intentionally not kept in adjacent pens/hutches
 - Pen/hutch walls can cause injuries or lesions to calves (e.g., due to poor maintenance or design)