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## Estimation of animal welfare in slaughterhouses

### Summary

Pre-slaughter stress affects the quality of animal meat and is subject to discussions in professional circles related to animal welfare. Causes of stress can be animal handling before coming to a slaughterhouse, unloading animals in an unknown environment, keeping them in a depot and inspection, then improperly conducted stunning and slaughtering. Regarding the length, acute and chronic stresses are differentiated. Each of them is reflected in meat differently. Killing an animal should cause a minimum stress to it, so slaughterhouses should ensure human conditions before and during the slaughter. There are several objective indicators of animal welfare in slaughterhouses, and they are: the number of animals which slip or fall, the number of animals which have to be encouraged to move, their crying and behavior. Basic causes of problems related to animal welfare in slaughterhouses are bad equipment and methods, factors which distract and interfere with moving of animals, lack of education of slaughterhouse employees, weak maintenance of equipment and facilities, weak conditions of animals which come to a slaughterhouse, as well as genetic lines of animals which don't handle stress well. Applying the animal welfare legislation in Croatia will only be possible through a constant education of slaughterhouse employees.

**Key words:** animal welfare, slaughter, stress

## Schätzung des Wohlergehens von Tieren in Schlachthöfen

### Zusammenfassung

Stresserlebnisse vor dem Schlachten der Tiere beeinflussen die Fleischqualität. In den Fachkreisen sind sie ein Gegenstand der Verhandlungsgespräche hinsichtlich des Wohlergehens der Tiere. Die Stressauslöser können folgende Faktoren sein: das Behandeln der Tiere vor dem Transport in den Schlachthof, Ausladung in die unbekannte Gegend, Haltung im Depot und Inspektion, sowie unregelmäßig durchgeführte Betäubung und Schlachten. Mit Bezug auf die Dauer kann man den akuten und chronischen Stress unterscheiden. Jeder von ihnen hat eine verschiedene Wirkung auf das Fleisch. Das Schlachten soll bei den Tieren den minimalen Stress verursachen und demzufolge sollen in den Schlachthöfen humane Bedingungen vor und während des Schlachtens gesichert werden. Es bestehen einige objektive Indikatoren hinsichtlich des Wohlergehens der Tiere in Schlachthöfen, u.zw: Zahl der Tiere, die rutschen oder fallen, die Zahl der Tiere die zur Bewegung angefordert werden müssen, wie sich ihre Stimme hören lässt oder wie sie sich benehmen. Die Grundprobleme, bezugnehmend auf das Wohlergehen in den Schlachthöfen sind: schlechte Ausrüstung und Arbeitsmethoden, aufmerksamkeitsablenkende Faktoren die das Bewegen von Tieren stören, mangelhafte Bildung der Beschäftigten, schlechte Wartung der Ausrüstung und des Gebäudes, schlechter Zustand der Tiere die in den Schlachthof kommen, sowie genetische Lebenslinien der Tiere die den Stress schlechter vertragen. In Kroatien wird die Anwendung der Gesetze über das Wohlergehen der Tiere nur mit einer ständigen Bildung des Personals, das in den Schlachthöfen beschäftigt ist, möglich sein.

**Schlüsselwörter:** Wohlergehen der Tiere, Schlachten, Stress

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## Valutazione del benessere di animali in macellerie

### Sommario

Gli avvenimenti stressanti che precedono la macellazione di animali hanno un notevole influsso sulla qualità di carne e nei cerchi professionali fanno parte delle discussioni che riguardano il benessere di animali. Le possibili cause dello stress sono la manipolazione con animali prima il loro arrivo in macelleria, lo scarico nell'ambiente sconosciuto, l'allevamento in deposito, l'ispezione, e anche lo stordimento e la macellazione fatti in modo incorretto. A proposito della durata, ci sono lo stress acuto e quello cronico. Nella carne ciascuno si rivela al modo suo. L'uccisione dovrebbe causare all'animale il minimo di stress, e perciò in macelleria bisogna assicurare le condizioni umane prima e durante l'atto di macellazione. Ci sono alcuni indicatori oggettivi di benessere di animali in macellerie, e questi sono: il numero di animali che scivolano e cadono, il numero di animali che bisogna animare che si muovino, le voci che producono e il loro comportamento. Le ragioni di base dei problemi legati al benessere in macelleria sono l'apparecchiatura scarsa e i mali metodi di lavoro, i fattori che distraggono l'animale e così ostacolano il movimento di animali, poi la scarsa educazione di impiegati in macellerie, la manutenzione mala di apparecchiatura e di edifici, le condizioni mali dell'animale che arriva in macelleria, ma anche le linee genetiche di animali che con difficoltà affrontano lo stress.

**Parole chiave:** benessere di animali, macellazione, stress

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