

Objectives:

type of hazards - red ●

effects of hazards - blue ●

prevalence or significance of hazards - pink ●

barriers or opportunities - green ●

Categorical data - nominal or ordinal ●

Continuous data - ratio or interval ●



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**Ergonomic hazards to meat inspectors at selected high throughput red meat abattoirs in the Western Cape.**

## **QUESTIONNAIRE**

**Meat inspection personnel**

### **INTRODUCTION**

Thank you for your willingness to participate in this research project.

The aim of the study is to conduct an analysis of the significance, the prevalence and the impact of ergonomic hazards on meat inspectors at selected high throughput abattoirs in the Western Cape.

All information will be treated as confidential and the researcher undertakes not to link any information to the respondent. The respondents will not be required to identify themselves anywhere on this questionnaire. The questionnaire will take approximately 30 minutes to complete.

Respondents may answer open ended questions in any South African language.

Researcher:

Supervisors:

**A. Demographic and General Information**

1. Please indicate your
- gender**
- ?

Male	1
Female	2

1

2. Please indicate your
- age**
- ?

Below 25	1
26 – 35	2
36 – 45	3
46 – 55	4
56 and above	5

2

3. What is the highest level of education you obtained?

Meat Examiner Certificate (Grade 12 (matric)	1
National Diploma	2
B Tech Degree or Degree	3
Postgraduate Degree	4
other please specify: .....	5

3

4. What is your average physical
- height**
- ?

< 1,5 m	1
1,5 – < 1,6 m	2
1,6 – < 1,7 m	3
1,7 – < 1,8 mm	4
other please specify: .....	5

4

5. What is your average
- physical weight**
- ?

< 60 kg	1
61 – 70 kg	2
71 – 80 kg	3
81 – 90 kg	4
other please specify: .....	5

5

6. How many years'
- experience**
- do you have in meat inspection?

< 1 years	1
1 – 5	2
6 – 10	3
11 – 15	4
16 - 20	5
21 +	6

6

7. How many years have you been working at this abattoir?

< 1 years	1
1 – 5	2
6 – 10	3
11 – 15	4
16 +	5

7

8. What is the nature of your job?

internship (meat inspector in training)	1
relief meat inspector	2
permanent meat inspector	3
supervisory meat inspector	4
other please specify: .....	5

8

### B. Occupational Health and Safety (OH&S) Management System

9. In your opinion, do the abattoir have an OH&S management system?

	Yes	No	Do not Know
management system	1	2	3

9

**Note: If your answer to question 9 is "No", please go to question 13!**

10. In your view, do the abattoir have a designated OH&S representative?

	Yes	No	Do not Know
health and safety representatives	1	2	3

10

11. Do you believe that the abattoir have control measures in place to prevent the occurrence of health and safety hazards?

	Yes	No	Do not Know
control measures to prevent hazards	1	2	3

11

12. Do the abattoir have a system in place to report and address health and safety hazards?

	Yes	No	Do not Know
reporting system	1	2	3

12

### C. Occupational Health and Safety Training and Awareness

13. Subject to your opinion, do the abattoir conduct health and safety training and awareness programmes?

	Yes	No	Do not Know
awareness and training conducted	1	2	3

13



**Note: If your answer to question 13 is "No", please go to question 19!**

14. If yes, how often are training and awareness conducted?

daily	1
weekly	2
monthly	3
annually	4
never	5

14



15. Do you participate in training and awareness programmes at the abattoir?

		Yes	No
	participate in awareness and training	1	2

15

**Note: If your answer to question 15 is “No”, please go to question 19!**

16. If so, do **training and awareness** programmes cover the following components?

	<b>Components</b>	Yes	No
	awkward postures	1	2
	grip force	1	2
	repetitive work	1	2
	variable line speed	1	2
	lifting	1	2
	bending	1	2
	vibration	1	2

16

17

18



19

20

21



22

17. Do you feel **training programmes** improve the overall health and safety awareness at abattoirs?

		Yes	No	Do not Know
	training improve health and safety awareness	1	2	3

23

18. To what extent do you **agree or disagree** with the following statements?

Statements	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
<b>Health and safety training and awareness .....</b>					
  ... contribute to better health and safety management	1	2	3	4	5
... reduces health and safety risks	1	2	3	4	5
... enhances the reporting of health and safety hazards	1	2	3	4	5

24




25

26

## D. Significance of Ergonomic Hazards




### i. Meat Inspection Areas

19. Do the abattoir have **dedicated areas** available for the performance of meat inspection?











		Yes	No
 	dedicated areas for meat inspection	1	2

27


20. Do the abattoir layout make provision for the **effective use** of these dedicated areas?

  	always	1
	seldom	2
	never	3

28

21. Do these areas provide sufficient **floor space** necessary to perform meat inspection?
- 
- |        |   |
|--------|---|
| always | 1 |
| seldom | 2 |
| never  | 3 |
- 29
22. Do you perform your tasks at a comfortable height?
- 
- |        |   |
|--------|---|
| always | 1 |
| seldom | 2 |
| never  | 3 |
- 30
23. Are you able to keep up with the **line speed** or the pace of work?
- 
- |        |   |
|--------|---|
| always | 1 |
| seldom | 2 |
| never  | 3 |
- 31
24. Can you perform all the necessary tasks within the required time frames?
- 
- |        |   |
|--------|---|
| always | 1 |
| seldom | 2 |
| never  | 3 |
- 32
25. In your opinion, do you consider the **number of inspectors** to be sufficient for this abattoir?
- 
- |        |   |
|--------|---|
| always | 1 |
| seldom | 2 |
| never  | 3 |
- 33
26. Do you **rotate** between the different inspection points or different tasks?
- 
- |                       | Yes | No |
|-----------------------|-----|----|
| tasks rotation system | 1   | 2  |
- 34
27. If yes, **how often do you rotate** between tasks or inspection points?
- 
- |                  |   |
|------------------|---|
| every 30 minutes | 1 |
| every 45 minutes | 2 |
| every 60 minutes | 3 |
| never            | 4 |
- 35
- ii. Meat Inspection Platforms**
28. Do you **require working platforms** to perform certain tasks?
- 
- |                     | Yes | No |
|---------------------|-----|----|
| platforms necessary | 1   | 2  |
- 36
29. Do platforms provide **sufficient walk-length** available to inspectors?
- 
- |                        | Yes | No |
|------------------------|-----|----|
| sufficient walk-length | 1   | 2  |
- 37
30. Do platforms make provision for **height differences of individual inspectors**?
- 
- |   | Yes | No |
|---|-----|----|
| provision for individual height differences | 1   | 2  |
- 38


31. Are platforms adequately **distanced from the slaughter line**?



	Yes	No
adequately distanced from slaughter line	1	2

39


32. Are these platforms fitted with side rails?



	Yes	No
fitted with side rails	1	2

40

33. Please indicate, if in your opinion these platforms are safe and comfortable to work on?




	Yes	No
are platforms safe to work on	1	2

41

### iii. **Hand Tools for meat inspectors**

34. Do you have an adequate set of hand tools to perform your duties?



	Yes	No
adequate set of hand tools	1	2


42

35. If no, please give a description of the type of tools that are inadequate:

<p>.....</p> <p>.....</p>
---------------------------

43


36. How **often** do you make use of hand tools in the day to day performance of your duties?



all day	1
most of the day	2
seldom	3

44


37. In your opinion, are hand tools **well designed to provide a comfortable grip**?



	Ye	No
well designed for a comfortable grip	1	2

45


38. Do you reckon that **"handle design"** could impact on the **type of grip** that are being used?



	Ye	No
handle design impact on type of grip used	1	2

46


39. In your view, do you believe that **"handle design"** could impact on the **strength of the grip** used?



	Yes	No
handle design impact on grip strength	1	2

47





40. Do you feel that **"knife sharpness"** may affect the extent to which you perform your tasks?



	Yes	No
knife sharpness affect task performance	1	2

48

41. Please indicate **type and size of knife** you use in performing meat inspection?

Knife type & size	Straight boning knife (12.7 cm)	Curved boning knife (12.7 cm)	Beef skinning knife (15.24 cm)	Butchers knife(25.4 cm)
	 1	 2	 3	 4

49

#### iv. **Body Posture while doing meat inspection**

42. Do you have to stretch or reach to perform certain tasks?

always	1
seldom	2
never	3

50

43. Do you perform certain tasks with arms in an elevated position (above the shoulders)?

always	1
seldom	2
never	3

51

44. Are you required to perform certain tasks bending forward?

always	1
seldom	2
never	3

52

#### v. **Repetitive Work while doing meat inspection**

45. Do you have to **repeat a series** of tasks when doing meat inspection?

always	1
seldom	2
never	3

53

46. If yes, are these standard tasks?

	Yes	No
standard prescribed tasks	1	2

54

#### vi. **Working Conditions of meat inspectors**

47. Please specify which of the following actions may be closely associated with your **daily working activities**?(NB!!! You can select more than one)

Repetitive work	1
Hand grip (gripping of hand tools)	2
Working with arms in elevated positions	3
Overreaching or stretching	4
Variable line speeds	5
Bending actions (neck and spine activity)	6
Vibration (working platforms or surfaces)	7
Lifting of products	8
other please specify: .....	9

55

48. Please indicate if any of the following may apply to the **nature of your work** (NB!!!

You can select more than one):

Physically demanding tasks	1
Long hours	2
No rest or recovery breaks	3
No rotation between tasks	4
Awkward stance or working positions	5
Highly paced activities	6
other please specify: .....	7

56

49. Did you ever, for a prolonged period of time, experience any of the following **discomforts** during the course of your work as a meat inspector (NB!!! You can select more than one):

	Yes	No
neck	1	2
back	1	2
shoulders	1	2
wrist	1	2
hand	1	2
other please specify: .....	1	2

57

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62

### E. Common Approaches to Ergonomics and OH&S

50. Please respond to the following statement:

Statement	Yes	No
I know whom to report health and safety hazards to.	1	2

63

51. Please indicate to whom you report health and safety hazards to? (NB!!! You may select more than one)

supervisory meat inspector	1
abattoir line manager	2
employer	3
Departmental officials (Agriculture)	4
other please specify: .....	5

64

52. Please answer the following question:

	Yes	No
Did you ever identify and report occupational health and safety hazards at the abattoir?	1	2

65

53. Please specify which of the following **statements** are True or False.

Statement	True	False
I have an understanding of the field of ergonomics	1	2
Reducing ergonomics hazards at the abattoir is important	1	2
Ergonomic hazards outside my scope of work is my concern.	1	2
Ergonomic principles applies to tool and equipment design	1	2

66

67

68

69



54. To what extent do you agree or disagree with the following statement?

Statement	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
Training conducted is relevant to the field of ergonomics	1	2	3	4	5

70

### F. Attitudes towards Ergonomics

55. Please answer the following questions.

Questions	Yes	No	Do not Know
Do you think the field of ergonomics is concerned with people and their work?	1	2	3
Do you think that workspace and equipment design are key elements in terms of ergonomics?	1	2	3
Do you think that the principles of ergonomics could be incorporated into the initial planning and design of abattoirs?	1	2	3

71

72

73

Remember No, Names [should appear on this form; everyone should remain anonymous]

**Thank You**