

Journal of Environmental Science and Health, Part A >
Toxic/Hazardous Substances and Environmental Engineering
Volume 39, 2004 - Issue 11-12

227 | 42 | 0
Views | CrossRef citations to date | Altmetric

Original Articles

Concentration of Copper, Iron, Zinc, Cadmium, Lead, and Nickel in Bull and Ram Semen and Relation to the Occurrence of Pathological Spermatozoa

P. Massányi , J. Trandzik, P. Nad, B. Koreneková, M. Skalická, R. Toman, ...show all
Pages 3005-3014 | Received 13 Feb 2004, Published online: 24 Jun 2011

Cite this article

Sample our
Engineering & Technology
Journals
>> [Sign in here](#) to start your access

We Care About Your Privacy

We and our 876 partners store and access personal data, like browsing data or unique identifiers, on your device. Selecting I Accept enables tracking technologies to support the purposes shown under we and our partners process data to provide. Selecting Reject All or withdrawing your consent will disable them. If trackers are disabled, some content and ads you see may not be as relevant to you. You can resurface this menu to change your choices or withdraw consent at any time by clicking the Show Purposes link on the bottom of the webpage. Your choices will have effect within our Website. For more details, refer to our Privacy Policy. [Here](#)

We and our partners process data to provide:

Use precise geolocation data. Actively scan device

I Accept

Reject All

Show Purpose



kel in bull

as

t copper

rison with

with ram

gher

found in

logical

s in ram

semen (17.17 ± 3.76) in comparison with the semen of bulls. Separated tail, tail torso,

and knob twisted tail were the most frequent forms of pathological spermatozoa in both species. Correlation analysis in bulls showed high positive relation between iron and zinc ($r = 0.72$), nickel and separated tail ($r = 0.76$), separated tail and tail torso ($r = 0.71$), tail torso and total number of pathological spermatozoa ($r = 0.72$), and between tail ball and total number of pathological spermatozoa ($r = 0.78$). In rams high positive correlation between cadmium and lead ($r = 0.98$), nickel and separated tail ($r = 0.77$), separated tail and total number of pathological spermatozoa ($r = 0.69$), knob twisted tail and retention of cytoplasmic drop ($r = 0.78$), and between knob twisted tail and other pathological spermatozoa ($r = 0.71$) was found. High negative correlation in ram semen was observed between copper and nickel ($r = 0.71$), copper and separated tail ($r = 0.70$), and between iron and tail torso ($r = 0.67$). The results suggest that the studied metals have a direct effect on spermatozoa quality.

Keywords: Trace elements Semen Pathological spermatozoa Bull Ram

Acknowledgment

We would like to express our gratitude to A. Sobcakova, P. Sykorova and Ing. M. Cinkanic for technical assistance. This study was supported by VEGA Scientific Grant 1/9080/0

Related



×

Information for

- Authors
- R&D professionals
- Editors
- Librarians
- Societies

Opportunities

- Reprints and e-prints
- Advertising solutions
- Accelerated publication
- Corporate access solutions

Keep up to date

Register to receive personalised research and resources by email

 Sign me up



Open access

- Overview
- Open journals
- Open Select
- Dove Medical Press
- F1000Research

Help and information

- Help and contact
- Newsroom
- All journals
- Books

Copyright

Accessib

Registered
5 Howick Pl

or & Francis Group
orma business

