



# Tetracycline Residue In Lamb Meat

Shaima Hijazi & Imad Shaheen, Adnan Fayyad

Department of Veterinary Medicine, An-Najah National University

## Introduction:

Antibiotic residue in the meat of lamb and other animals is a very serious problem that must be controlled, residues may cause a pathologic effect if increased in the body of the human such as allergy, carcinogenicity, nephropathy and hepatotoxicity

## Objectives:

To detect the presence of Tetracycline residue in lamb carcasses.

## Materials and Methods:

100 Samples from lamb diaphragm were taken from Nablus Municipality Slaughterhouse.

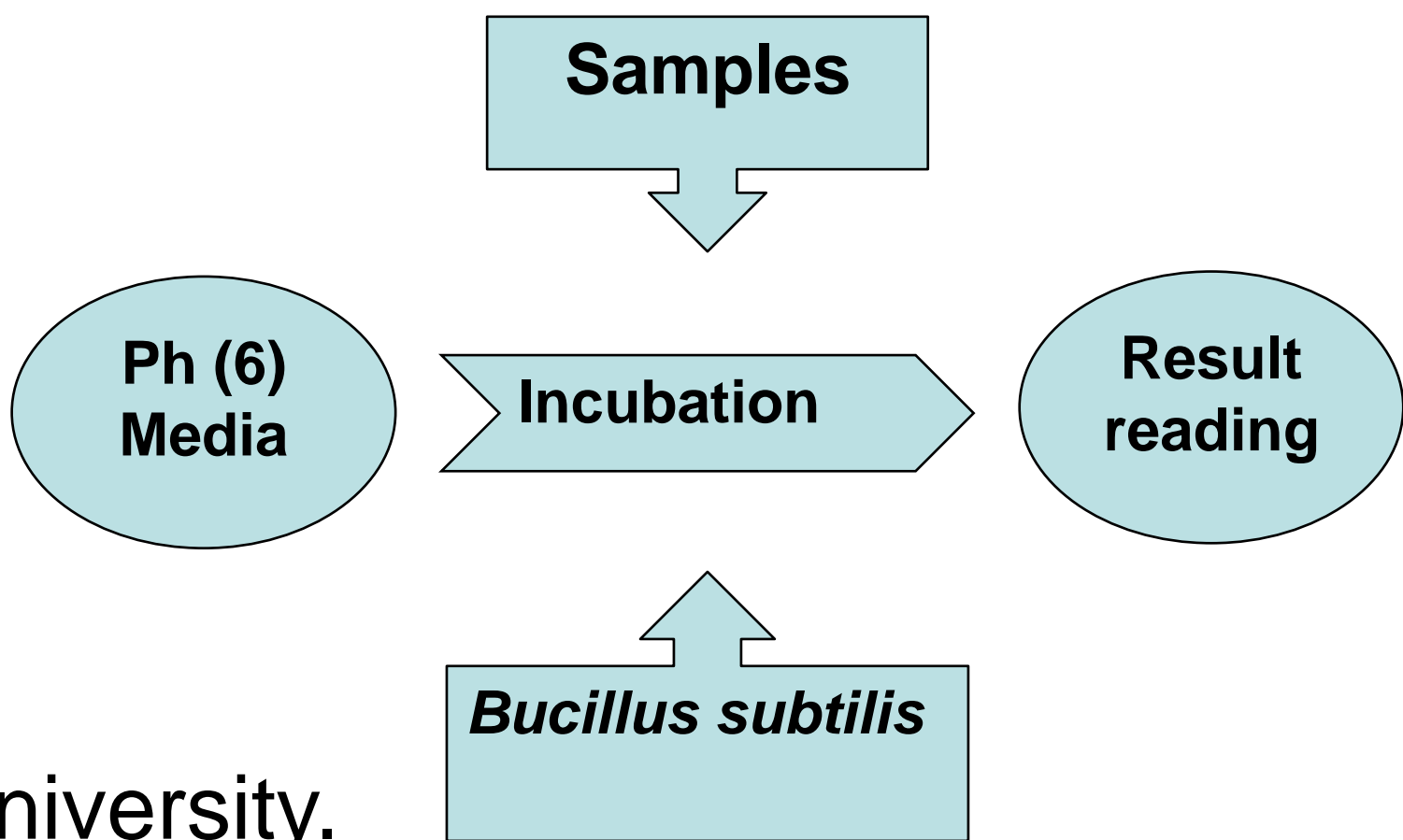
### Mode of Action of Media pH (6)



- ❖ The test is carried out according to the agar diffusion procedure.
- ❖ Small slices of the meat sample are placed on the inoculated Test Agar plates and incubated.
- ❖ Antimicrobial inhibitors contained in the samples diffuse into the nutrient media and cause growth-free inhibition zones to develop on the otherwise thickly covered plates.

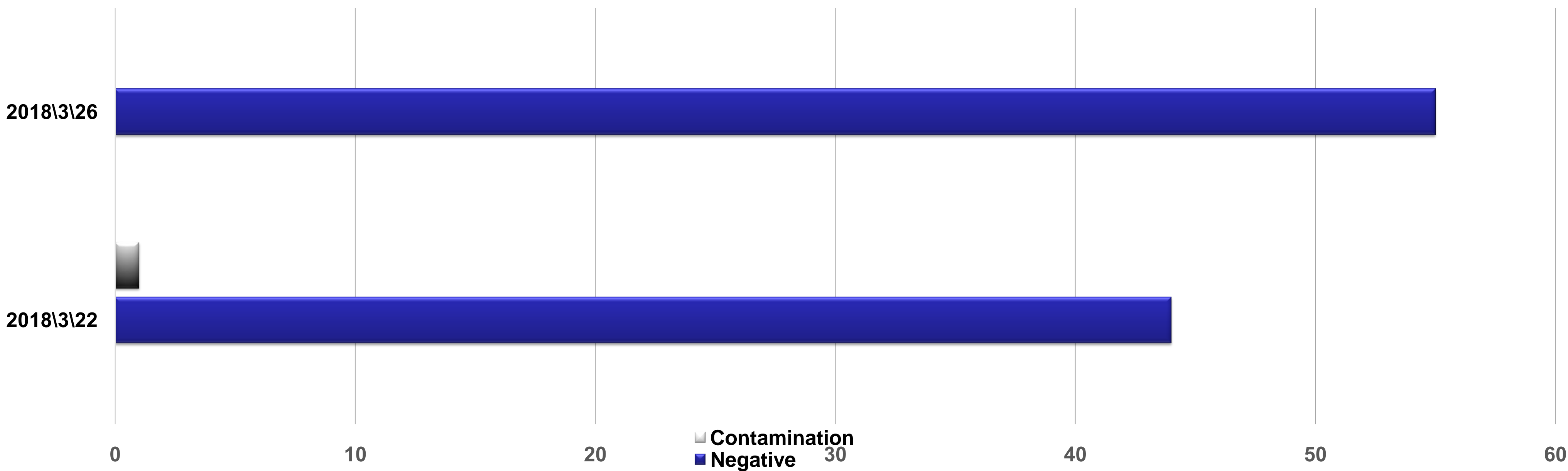
### The Bacteria *Bacillus subtilis*

- ❖ Was already isolated from the soil at the microbiologic lab of the Science collage at An-Najah National University.
- ❖ The concentration was adjusted to  $10^7$  cfu/ml.
- ❖ So After mixing 1ml of the broth to 1L of bacteria the final concentration is  $10^4$  cfu/ml.



## Results:

100 Samples were tested, 99 negative and 1 contamination



## Discussion:

- ❖ Random samples were tested with unknown history of using antibiotics before slaughtering.
- ❖ Samples collected were negative for tetracycline. However this does not exclude the presence of residues for other antibiotics.

## Summary:

- ❖ The test was applicable and cheap compared to other methods.
- ❖ No Tetracycline residues were detected.
- ❖ Human health worth more attention and researches.
- ❖ Improving supervision on antibiotics will improve the safety and quality of meat and meat products.

## Conclusion:

- ❖ Control of Drugs and Antibiotic marketing is the Key to control Residue problems.
- ❖ Meat with stamp is much trusty to consume.