



# REPRODUCTIVE HERD HEALTH

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# Feed and Water hygiene



# Feed and Water hygiene

## a cow at the peak of milk production

- Dry matter 3-4% of body weight
- Consumes up to 150 - 160 liters of water



(Küplülü ve Vural, 2015 TİGEM)

# Factors affecting water consumption

- Walking distance
- Quality of water
- Degree of water
- Contamination of water
- Hierarchical order
- Number of drinkers per animal
- milk yield

# Factors affecting water consumption / property of wa

Parameters	Risk Factors (Mg/L)	Mean con (mg/L)
PH	< 6,0 - 8,5 >	7,6
Whole dissolved solids	1000 <	190
Nitrate - Nitrogen	20 <	0,9
Cu	1,0 <	0,02
Fe	0,30 <	0,20
Manganase	0,05 <	0,01
Chloride	250 <	10,1
Sulfate	1000 <	11,4
Coliforms (E.coli)	1 < (100 ml/koloni*)	< 1 (100 ml/koloni*)
Hardness		89.6

(Swistock, 2017)

# Water Consumption



# Water Consumption

## ÜRETİM PROBLEMLERİ ↑



- Metabolik fonksiyon bozukluğu
- Asit-baz dengesinin bozulması
- KM alımında düşüş
- Vücut ısısında yükseliş

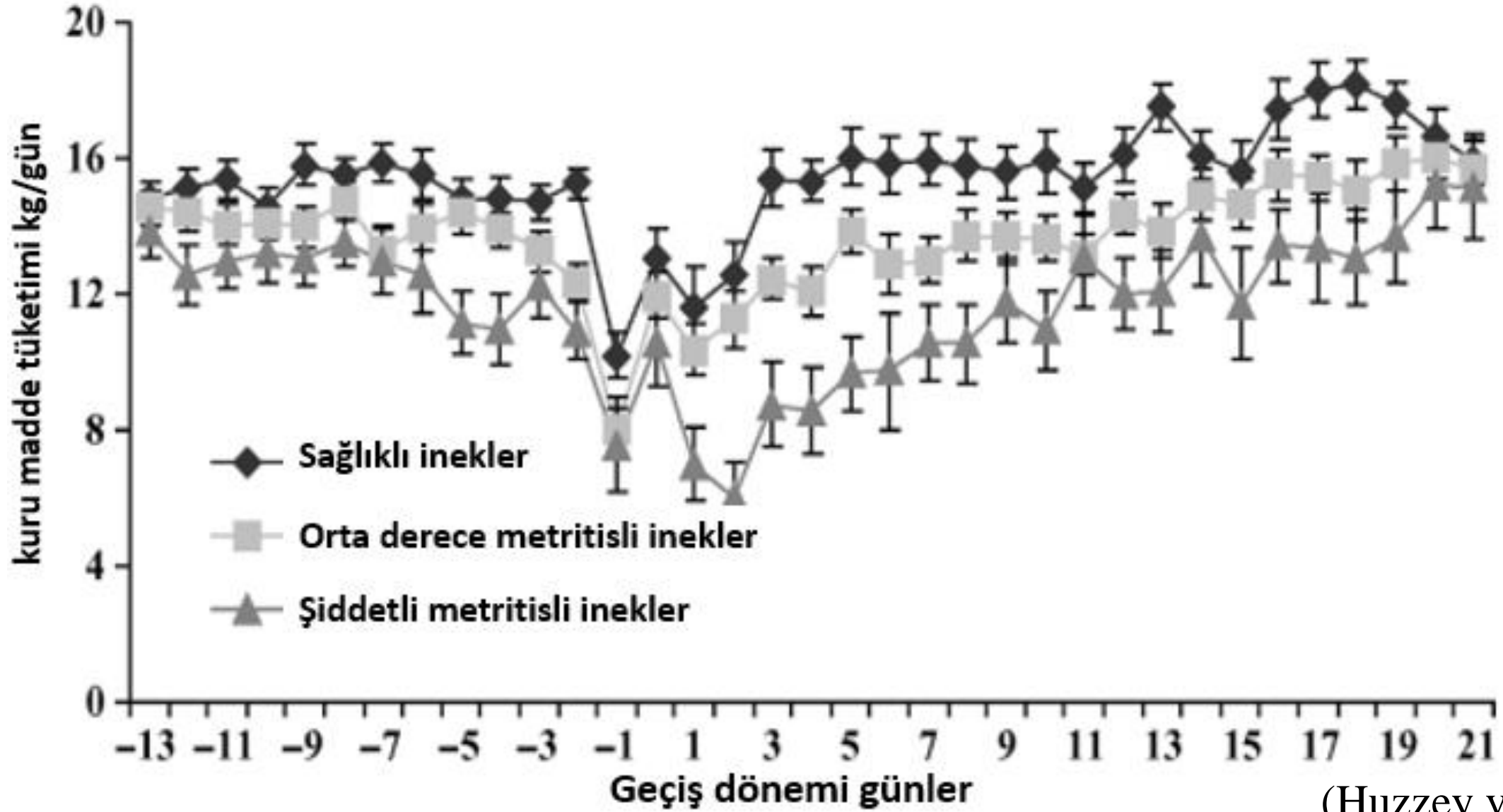
# Factors Affecting Feed Consumption

- Quality of ration
- Hierarchical order
- Enough space for each animal
- Milk yield
- Contamination of ration





# Relationship between prepartum dry matter consumption and uterine infections



(Huzzey ve ark., 2007)

# Feed Hygiene / Mycotoxins



1. Begin in the field



2. Continue in silage production



3. End with correct management of the open silo and feedstuffs.



**Growth between 0-60 ° C and 2 - 7 pH**

(Zain, 2011; Nahrer ve Rodrigues, 2017)

# Feed Hygiene / Mycotoxins

The term mycotoxin mykes (Greek, fungus) and toxicum (Latin, poison)

Reproduction in general

Temperature: 0-60 ° C

PH: 2-10

water activity: 0.74-0.99



# Feed Hygiene / Mycotoxins

There are around 400 species but the most common ones

- Fusarium; before or after harvest
- Penicillium and Aspergillus species; during drying and in warehouses
- It was determined that they can produce toxin by infecting food.

# Feed Hygiene / Mycotoxins

## Effects 1

- Immune system collapse
- Gastrointestinal problems
- Decrease in dry matter intake
- Rumen dysfunction
- Intestinal hemorrhage



# Feed Hygiene / Mycotoxins

## Effects 2

- milk contamination
- fertility problems
- liver problems
- decline in milk production
- growth retardation
- metabolism problems



# Feed Hygiene / Mycotoxins

**Dairy cows**  
**Zearalenone problem**

**When feeding > 1.3 mg / kg**

- Irregular oestrus
- Low concept rate
- Ovarian cyst
- Embryonic death

pasteurization and boiling  
ineffective



# Feed Hygiene / Mycotoxins



(Küplülü ve Vural, 20015 TİGEM)



# Feed Hygiene / Mycotoxins



(Küplülü ve Vural, 2015 TİGEM)