

ANKARA UNIVERSITY
FACULTY OF VETERINARY MEDICINE
ANIMAL DISEASE AND NUTRITIONAL DISEASES

NUTRITIONAL DISEASES IN RUMINANTS

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Yemleme programı ve sağlık bozuklukları

arasındaki ilişki

-Inadequate feed or energy and nutrient intake,

-Insufficiency of feed quality,

-Misuse of requirements norms, causes lack of energy and essential substances in animals.

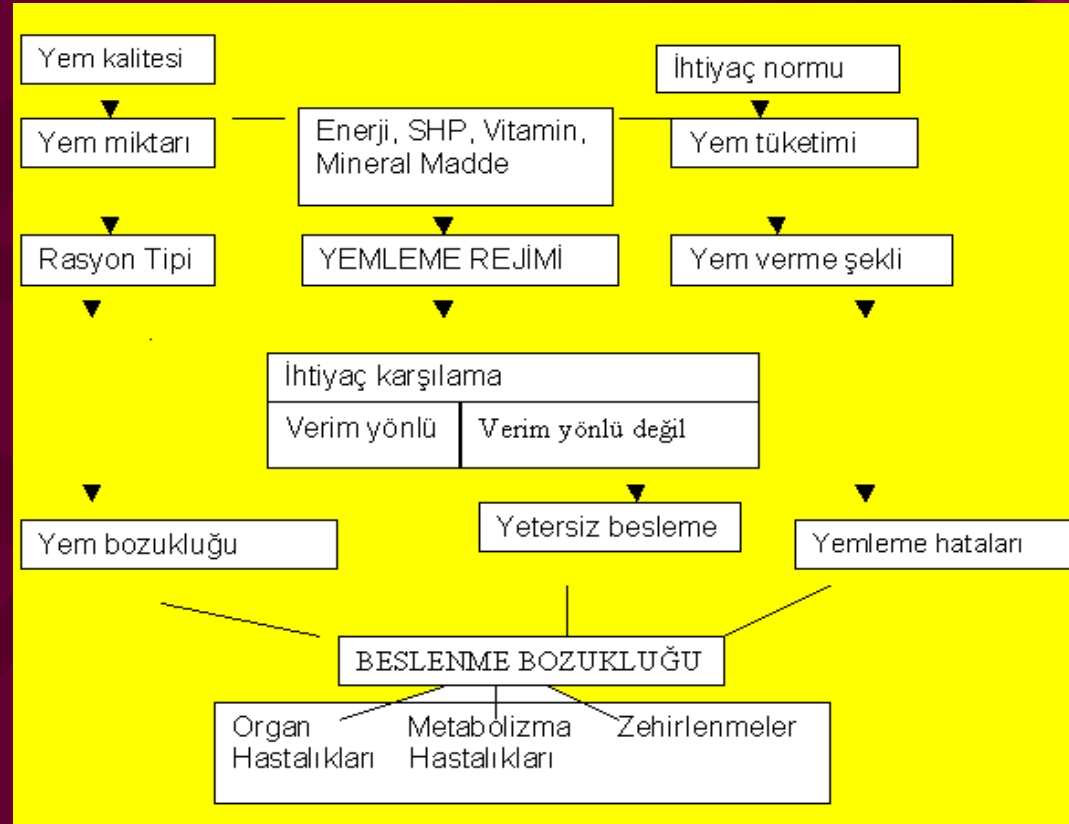
This is referred to as "NUTRITIONAL DEFICIENCY".

*The quality of feedstuff and feed deficiencies are closely related.

*The structure of feed substances and organ diseases are closely related.

Health disorders due to incorrect feeding are expressed as FEEDING ERRORS.

Insufficient feeding + feed disturbances + feeding errors = "NUTRITION DISORDER"



	in case of redundancy	in case of deficiency
Energy	Acidosis, milk fever, laminitis	Ketosis, milk fever
Easy digested carbohydrate	Acidosis, metabolic acidosis, laminitis, mastitis	Ketosis, milk fever
Crude cellulose	Rumen alkalosis	Metabolic acidosis, diarrhea, ketosis, laminitis, mastitis, liver damage, milk fever, ovarian dysfunction, prevention of steroid hormone synthesis
Crude protein	Rumen alkalosis, ketosis, tetany, endometritis, metabolic alkalosis, laminitis, insemination index and reduce first insemination results, vaginitis, liver damage	Negative nitrogen balance, breakdown of muscle proteins, degradation of enzyme synthesis in tissues, inhibition of erythrocyte and leukocyte synthesis, deterioration of antibody synthesis and infertility

ACIDOSIS

(Lactic acidosis)

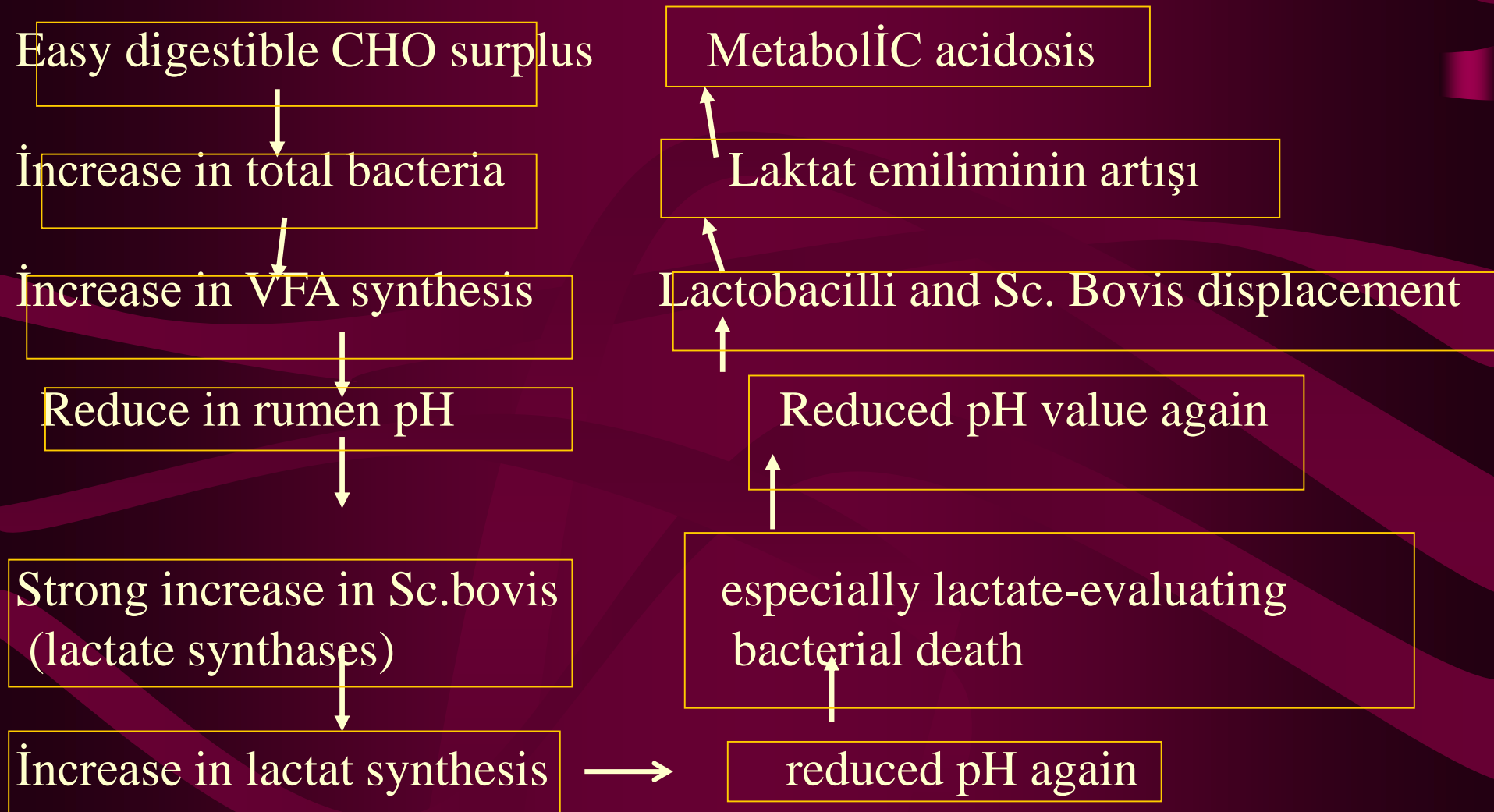
- Acute acidosis occurs when the pH value of the rumen falls below 5.5.
- The pH value of the rumen content should normally be between 5.8-6.2 /6.4-6.8.
- Feeds rich in easily soluble carbohydrates (especially wheatgrass) quickly ferment in the rumen.
- These feeds are deficient in cellulose, which is necessary for adequate chewing activation.

Acidosis in cattle

❖ Etiyology

- Rumen acidosis may be associated with laminitis.
- Carbohydrate feeds that can be easily fermented in extreme quantities are fed to ruminants unilaterally, the ration HS levels are low, resulting in increased ruminal lactic acid microorganisms and lowering the pH to 5.4-5.2 and L. acid.
- Rumen de lactic A. microorganisms (such as St.Bovis, lactobacillus supp., Butyrivibrio fibrisolvens) multiply.

Rumen flora reaction chain in acute rumen acidosis (NOCEK, 1996)



ACIDOSIS

- It occurs with high amounts of animals that are not accustomed to grain grains, and in a short time with these grains.
- Sudden ration change occurs when feeding faults and concentrated feeds are suddenly consumed.

Rapid increase in the amount of concentrated feed.
Unbalance of ratio of coarse feed / concentrated feed.
Rough feed fiber inadequacy.

- Clinical signs are mostly gray-brown, foamy stools, anal region and tail contaminated from this fecal matter.
- Acidosis also causes diseases such as nail inflammation, laminitis, rumenitis, liver abscess, polyencephalomalacia and foot rot.

