

# Seminar 10

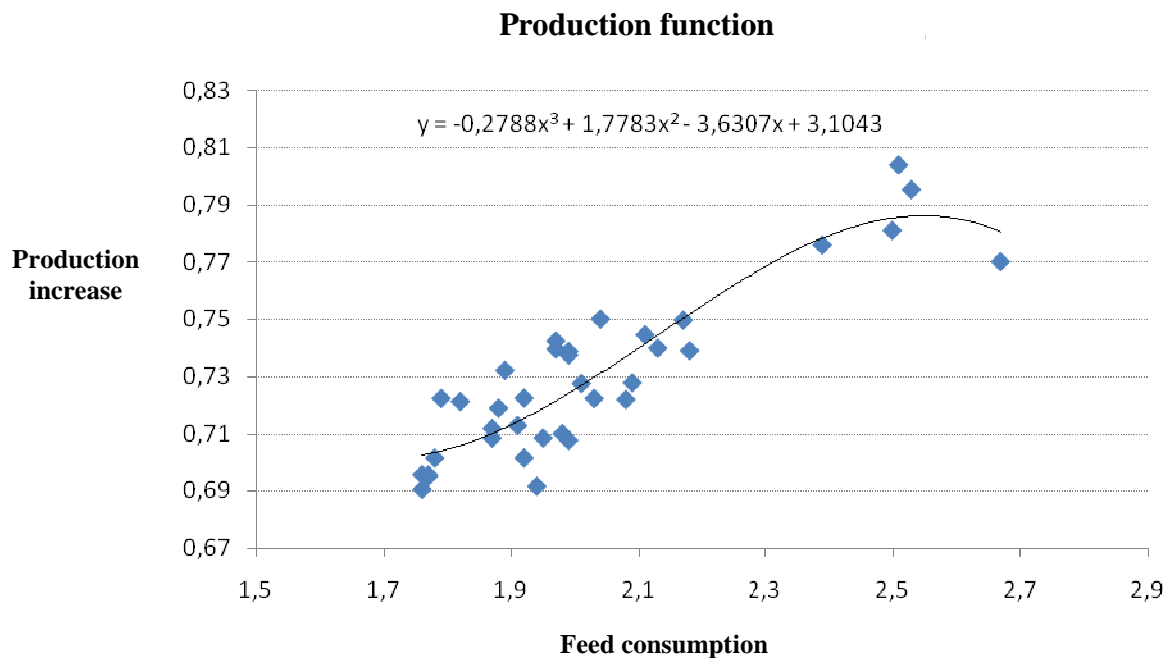
## Production function

### Exercises

1. Non-linear one-factor production function was estimated based on the data table (see extra file with data set) in the following general form:

$$y = a + bx + cx^2 + dx^3$$

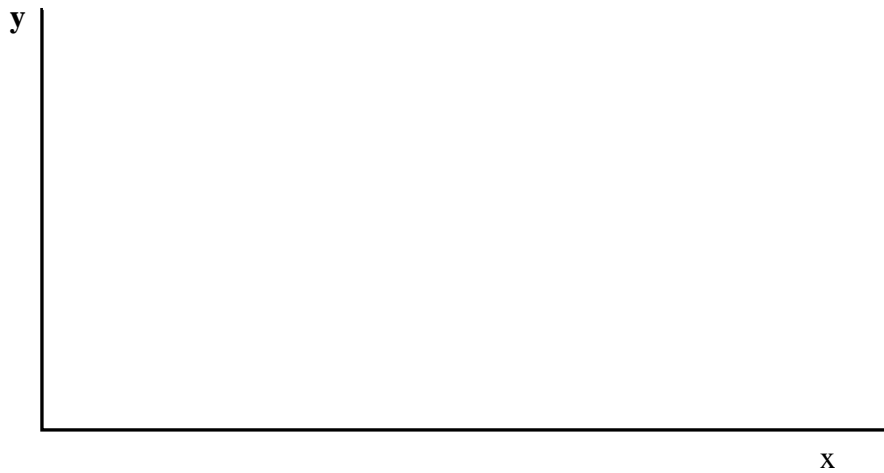
This function was employed to describe the relationship between production increase and feed consumption ( $y = \text{production increase in kg}$ ,  $x = \text{feed consumption in kg/day}$ ).



2. Calculate production increase in kg/day in case of the feed consumption 2 kg/day and 2,5 kg/day.
3. Write the function of the average production (AP) and explain its meaning.

4. Write the function of the marginal production (MP) and explain its meaning.

5. Draw AP and MP function into the graph in connection with the production function.



6. Calculate feed consumption for:

- a) maximal marginal production and explain this situation;
- b) marginal production equal to zero and explain its economic meaning.

