

**Review paper**

10.7251/AGRENG2202012T

UDC 338.43 (437.3)

## **PEASANT AND NATURE AT THE ONSET OF MODERN FORMS OF FARMING IN CZECH LANDS**

Martina TOBIASOVA, Zbynek ULCAK\*

Department of Environmental Studies, Faculty of Social Studies, Masaryk University,  
Brno, Czech Republic

\*Corresponding author: ulcak@fss.muni.cz

### **ABSTRACT**

Traditional farming in the 19<sup>th</sup> century is often perceived as an era of farmers who live in harmony with nature. The research questions were: What forms of approach to nature can be identified in the period of the onset of modern forms of farming in the Czech lands? how is this approach interpreted? And how was it shaped? Farming textbooks issued between the years 1820 - 1914 were used for the content analysis. The categories were identified: a) Systematization, calculation, rationalization; b) Modern practices as a yield guarantee; c) Fertilizers - necessity for high production; d) An animal like a machine; e) Machinery as a means of perfect work; f) Science as a higher authority; g) Agriculture as the basis for the welfare of the nation; h) Nature as a subject of adjustment. The partial approaches can be summarized into one. This is the perception of nature as a machine. The approach to nature as an environment of production can be interpreted in the form of modern practices, which began to be used to achieve the highest yields. Implementation of such practices required extensive landscaping and regulation of water elements in the landscape. Understanding nature as the environment of production was formed mainly as a result of abandoning traditional values as they were replaced by science and industry.

**Keywords:** *Traditional farming, content analysis, Czech Republic, peasant, modernity.*

### **INTRODUCTION**

As stated by Almstedt et al. (2014): “Globalisation, increasing competition on the world market, increased environmental awareness, and the orientation towards the service sectors in Western economies has dramatically altered the preconditions for development, not only in urban centres but also in rural areas. Furthermore, despite popular perceptions, the consumption and provision of rural products and services has increased with demand mainly coming from urban areas. A countryside dominated by traditional occupations in agriculture separated from urban life is now regarded as ‘a rural myth’”. At the same time there is enough evidence of the negative environmental impact of modern industrial agriculture (Kimbrell, 2002;

Horrigan et al., 2002). This discrepancy between the perception of the countryside as an "intact environment" and yet the documented deterioration of the environment leads us to search for its roots.

The work of the peasant in the 19<sup>th</sup> century is often idealized. He is imagined as a farmer who cultivates the land without the use of modern technologies, by hand and with the help of animals. When a general public thinks about the time, they tend to see farmers who live in harmony with nature and do not significantly affect the environment. As early as the end of the 18<sup>th</sup> century, however, a modern transformation of agriculture began and resulted in far-reaching environmental consequences. Nowadays in the Czech lands, the attention is mostly paid to the changes in the post-war years (after 1945), when a collectivization in agriculture associated with land consolidation and the expansion of the application of artificial fertilizers. However, these and many other changes have taken place more than 100 years ago and so far they were rather in the shadow of the above-mentioned event.

Industrialization in agriculture is a long-term process, still ongoing, when agrarian society changes into a modern industrial and consumer society. Population predominantly living in rural areas and subsisting on agriculture is disappearing and being replaced by urban population working mainly in industry and services. Industrialization process began in the 18<sup>th</sup> century in northwestern Europe (Jindra et al. 2015).

According to Šindlářová (1997), consequences of industrializations are as follows:

- Positives of industrialization: increasing labor productivity, improving farmers' skills in working with machinery, elimination of much of the simple manual labor, creating conditions for comparable working and living conditions for farmers, in general, greater openness and the possibility of mobility for technically qualified workers.
- Negatives of industrialization: investment intensity, consequences for the soil, water resources and the whole agricultural landscape and the environment, creation of types of industrial monotonous and tiring work.

From the end of the 1840s, agriculture began to gain momentum rapidly in the Czech lands. This situation was caused by the abolition of feudal wages and forced labor, but above all by introduction of new production processes and dissemination of expertise. However, development did not happen without consequences. Capitalist agriculture had faced economic crises from overproduction (Kubaák, 1994). The great agricultural depression after 1878 was preceded by an industrial, banking and commercial crisis leading to the Vienna stock market crash of 1873 (Lom, 1979). This crisis is considered to be the most serious the economy has ever experienced (Beranová and Kubaák, 2010). The development of long-distance trade had also a great influence on trade with agricultural goods, which was supported by new transport technology (Petrá and Patráová, 2000).

The greatest development of agricultural production took place in the years 1845-1880, mainly in technology. This was due to rising prices for agricultural products

and especially by the development of agricultural sciences (Lom, 1930). From the end of the 18<sup>th</sup> century until 1850, the domain of agriculture was crop production, especially the cultivation of cereals. Livestock, especially cattle, served as a means to the greatest cereal production (Beran, 1978).

All major changes in agriculture (sowing practices, intensive cultivation, fertilization with industrial fertilizers, drainage, new agricultural technology, newly bred crop varieties and animal breeds) first took place on large farms (Beranová and Kubaák, 2010). The economic and technical rise took place unevenly. According to Lom (1979), there were differences “*in soil fertility and the advantage of economic conditions, capital the strength of agricultural holdings, in principle to meet the needs of the family from agricultural production and in skills of farmers*”. At first, farms remained behind, mainly due to small land area and land fragmentation and did not directly participate in total production. It was not until the end of the 19<sup>th</sup> century that peasants, thanks to agricultural education and cooperative self-help began to balance large farms (Beranová and Kubaák, 2010; Lom, 1979).

### MATERIALS AND METHODS

The goals of the research and the research questions were: What forms of approach to nature can be identified in the period of the onset of modern forms of farming in the Czech lands? How is this approach interpreted? And how was it shaped? The research consists of an analysis of selected agricultural texts from the 19<sup>th</sup> century. The analysis was performed by a qualitative method – a text analysis. The research sample consists of texts with an agricultural theme published between 1820 and 1914. The research sample includes the following documents:

ervený, A. (1871), Horský, F. (1861, 1863, 1872), Jettmar, J. (1887), Prokpek, J. A. (1899), Richter, J. (1864). Zeithamer, L. M. (1874).

### RESULTS AND DISCUSSION

Based on the content analysis, the following main categories were identified: a) Systematization, calculation, rationalization; b) Modern practices as a yield guarantee; c) Fertilizers - necessity for high production; d) An animal like a machine; e) Machinery as a means of perfect work; f) Science as a higher authority; g) Agriculture as the basis for the welfare of the nation; h) Nature as a subject of adjustment.

*Systematization, calculation, rationalization* - in the analysed texts, emphasis is placed on the organization of the economy associated with the introduction of modern practices. According to the authors of the texts, this is the only way to achieve required yield. The belief in the need for the system is given in a way that leaves no room for possible doubts. According to Horský (1863), the farmer becomes a farmer only by introducing a system: “*I believe that only a system makes the peasant a farmer*”. It is a system that gives the impression of uniformity if everyone manages in the same way, texts encourage their readers. The monotony is manifested not only in the very activity of the peasants, but also in nature. This is

mainly due to the introduction of new technologies that turn away users from creative activity and allow control over nature. A transformation of peasant into a farmer evokes a transition from the traditional concept of farming into the modern one. Traditionally, agriculture has provided a livelihood for a small circle of people. With the advent of modernity, emphasis began to be placed on the greatest possible production and economic effectivity.

*Modern practices as a yield guarantee* - a fundamental change towards a modern way of farming was the transition towards the crops ration. This is discussed in all researched texts and it is considered the basis for progress in agriculture: “introduction of crop rotation, together with a proper farm management result in progress” (Horský, 1872). Thus, the crop rotation can be considered as a stepping stone in the direction to the perfect and intensive use of land that farmers seek. Of course, it leads to high returns and securing a steady income. Therefore, nature is seen clearly as an environment that provides production, profit and money. From the contemporary environmental view, it is interesting how introducing crop rotations led to the conversion of pastures into fields, thus gaining another space for growing crops and therefore additional yield. The disappearance of cattle grazing also has another dimension, which was mentioned only in one of the texts, but it seems important to mention it and it is also connected with others emerging trends. Namely, because children cannot go to school due to cattle grazing: “It is cattle grazing, which prevents many children from attending schools, feeding cows in stables is possible due to crop rotations ”(Horský, 1861: 33). As a result, farming will allow children to go to school, thus breaking down an obstacle to the education, which in turn is essential for agricultural progress and higher production.

*Fertilizers - necessity for high production* – a farmer would not consider artificial fertilizers necessary. He only got along well with the application manure. On the contrary, buying fertilizers meant additional costs for him. But in researched texts there is a constant idea that with the use of fertilisers it is possible to raise to the highest possible degree of profitability. Until the full potential of soil is reached, it is possible to increase the benefit. Man-made fertilizers make it possible to exceed soil fertility limits and nature thus again finds itself in the role of an artificial device, which is to ensure only and only production. According to Prok pek (1899), manure was sufficient only when a fallow farming was practiced: “Barn manure was enough at a time when 1/3 of the land was left fallow every third year lying and for two years the field was just sown... ”. Here again it may be seen how individual changes in agriculture are related. Introduction of crop rotation required more intensive fertilization, which only manure could not provide. Use of fertilizers thus go hand in hand with the expansion of crop rotations.

*An animal like a machine* - in the texts, cattle breeding is mainly reduced to the issue of feeding in which they prevail certain paradoxes. On the one hand, the animal is placed in a position of importance and care is taken about his natural demands. On the other hand, it sounds like it is considered inferior and serves as a “money factory”. It is often stated, that a peasant held more cattle to bring the

desired benefit, but at the same time did not provide the animal sufficient supply of new energy. The cattle suffered over the winter, the peasant did not take care of it and often he did not notice animals until the spring, when they were needed to work. Cattle was treated like a tool that puts off after work is completed. A typical modern approach, in this case

however, it seems to be based on the needs of the farmer himself and not from needs of society (for the market). This approach is often criticised in the researched texts, many improvements are presented in animal nutrition, housing, veterinary care. An example – *“In winter, let’s often put pork cold wash with water, then bathe in the summer, which is good for him”*. Such approach does not comply with modernity.

*Machinery as a means of perfect work* - agricultural machines and implements are presented in texts as means for a perfect job. This is essential for emerging intensive agriculture. Every farm should be equipped with the technology to ensure the highest possible yield. The peasant turns into a robot by working with the machine, and nature is subdued by perfection. *“Time is money and money is the nerve of the state organism”* (Horský, 1861) - the quote says "time is money", this is a typical modern approach. It cares about speed and maximum performance and does not look at impacts. The comparison of money to the nerve and the state to the organism is also of interest. Money, like the state, is an institution created by humans and spoken of as living. While it is nature that really is living, in researched texts is understood as a machine, an artificial device. In pursuit of profit, traditional values have completely reversed and nature is definitely not doing well.

*Science as a higher authority* - The modern transformation of agriculture would not be possible without scientific knowledge. The peasant is encouraged to follow science and use it to his advantage: *“from a Man of Progress it is required that such a man must be in charge of science and experience for his own profit to a reasonable extent...”*. There is even a peasant here marked as a man of progress. Its role thus goes beyond agriculture. On him as if all development depended. The peasant is the one who is to make progress. As if he was expected to be a role model for others and to give them proper results.

*Agriculture as the basis for the welfare of the nation* - the task of a peasant is to provide food for all mankind, and therefore the economy is necessary amended to achieve this. As stated above by Horský text (1863), a farmer draws crops from the ground. It is therefore necessary to feed humanity. Of course, the peasant with his work he procures that food. But no matter how noble his work is, he will still not get without land nothing. Rather, the nobility should be geared towards land management practices. Although new technologies in agriculture have guaranteed higher production, they are environmentally friendly far. Attention is focused on people’s satisfaction, the good of nature is in the background of interest. Traditionally, the peasant took care of supplying his own large family, or exchanged his own products with locals. Along with the advent of modernity, however, came the demand to produce for market and sell for money. There is a

need to provide food for a growing number of residents. Agriculture thus became the basis for the welfare of the nation. The peasantry guarantees security of the state. Inexhaustibility is even considered as resulting from agriculture: "*Agricultural empires are opening up everywhere, our gold mines are barely exhaustible*" (Komers, 1861). Nature, however it is definitely not inexhaustible. And since it is central to production, it cannot be dispensed with. But it is treated as if it were. When the soil no longer provides the expected output, measures are taken to return it to form and harvest. Modern forms of farming leave far-reaching consequences for nature, but they allow the people to live better and this is considered essential.

*Nature as a subject of adjustment* - Land reclamation, land consolidation and others are a relatively large topic in the texts. Drainage or irrigation have become one of the main tasks to increase yields: "*Ingenious use, distribution and management of both the superior and groundwater for irrigating dry and drying wet lands matters much...*" (Zeithamer, 1874). In addition to land reclamation and land consolidation, meadow management and regulation of watercourses occur as text topics. It is advised that adjustments of meadows and streams were made as easy as possible and possible damage was prevented. In the meadows no inequality or barrier is tolerated, otherwise the return from them will not be satisfactory.

Let's now look at how nature as an environment for production is approached and how it is interpreted. Generally speaking, it is portrayed through newly introduced practices in agriculture. These modern forms are most evident in contemporary texts farming: crop rotations, deep ploughing, application of fertilizers, stable animal husbandry associated with the extinction of pastures, the use of agricultural machinery and land reclamation. All these methods are interconnected and cause other necessary changes. These include land consolidation, meadow landscaping and watercourse regulation, and conversion of pastures and other crops in the field. For the farmer, the intensification of agriculture will make work easier, it will reduce costs, help to achieve perfect management, but above all it will increase production. This is stated in the texts as the main goal to which every peasant should aim. Modern production technologies in agriculture are to meet the ever-increasing demands population and thus improve their lives. We are thus touching the theory of progress, when it was believed that development will bring benefits. The researched texts also present the belief that the new management system guarantees satisfaction and well-being for all. Progress linked to modernity however, guarantees instead a rather ruined environment, as the analysis has shown and how Wuketits (2006), Loewenstein (2006) or Pepper (1996) speak for example. The last point of the research question is how the approach to nature as an environment for production was formed. At the very beginning, one can see a departure from tradition. It happened especially due to the development of science and industry linked to market production. Traditional wisdom of the elders was replaced by science, which with its knowledge provided the basis for intensification of agriculture. In the texts, there is a direct appeal to abandon old (traditional) practices with which higher production cannot be achieved. With

science the education is interconnected that every peasant should attain to a sufficient degree to be able to rationalize its management and thus increase revenues. Rationalization with science and subsequent growth are signs of modernity. It is not left for tradition space, as well as not for nature.

### CONCLUSION

The expansion of the industry in the 19<sup>th</sup> century required new raw materials provided by agriculture and increasing cultivation of industrial crops. Peasants in this sector saw secured sales, and so they followed these demands. Changes took place throughout the whole economy. Not only the peasant but also the whole nation benefited from the production. The industry, for which sufficient raw materials were secured, could then earn more profit. According to researched texts, the well-being of the whole nation is based on a peasant effort, he has to secure it through sufficient income. The basis was to produce as much as possible for as many people as possible. Peasant newly began to be driven by market demand, not household or community needs. Traditional self-sufficiency has given way to a modern focus on performance in an effort to be competitive. Following the thesis of classical economists of the 18<sup>th</sup> century, this situation could be understood as a transition to the desire to satisfy everyone's needs as much as possible. Regardless the consequences. From the analysis of contemporary texts and its confrontation with theoretical concepts of modernity, tradition and progress, it may be concluded that the relationship of the peasant to nature at the time of onset of modern forms of farming has been determined primarily by an emphasis on utility and potential production. Emancipation from traditional beliefs has also caused disconnection from nature as living entity. Within the established modern methods in agriculture, nature is understood as a machine that offers endless possibilities of use.

### REFERENCES

- Almstedt, A., Brouder, P., Karlsson, S., Lundmark, L. (2014). Beyond post-productivism: from rural policy discourse to rural diversity. *European Countryside*, vol. 4, pp. 297-306.
- Beran, Z. (1978). Feed base in the system of Czech agriculture 1750-1938. Agricultural Museum - Institute of Scientific and Technical Information for Agriculture, Prague.
- Beranová, M. and A. Kuba ák. (2010). History of agriculture in Bohemia and Moravia. Libri, Prague.
- ervený, A. (1871). Peasant in nature. Matice rolnická, Prague
- Horrigan, L., Lawrence, R.S., Polly Walker, P. (2002). How Sustainable Agriculture Can Address the Environmental and Human Health Harms of Industrial Agriculture. *Environmental Health Perspectives*, vol. 110, pp. 445-456.
- Horský, F. (1861). Alternating economy and its general extension, the most powerful

- means of multiplying national wealth and facilitating the payment of the tax, is justified experience results. Jind. Mercy Publ., Prague
- Horský, F. (1863). Horský Field Sermon. Volume 7: Harvest and harvesting. Jind. Mercy Publ., Prague
- Horský, F., Knight of Horskysfeld. (1872). Summary and certificate of the most effective educational resources for economic institutes and small farmers for profit management of the economy. František Knight Horský of Horskysfeld, Prague
- Jettmar, J. (1887). About man-made fertilizers, what every peasant needs to know about them. A. Reinwart. Prague
- Jindra, Z. et al. (2015). The economic rise of the Czech lands from the middle of the 18th century to the end of the monarchy. Karolinum, Prague.
- Kimbrell, A. (2002). The fatal harvest reader: The tragedy of industrial agriculture. Foundation for Deep Ecology, San Francisco.
- Komers, A. E. (1861). Progress in Agriculture (Volume 1, II). Jaroslav Pospíšil, Prague
- Kubaák, A. (1994). History of Agriculture in the Czech Lands, Part I. Ministry of Agriculture, Prague.
- Loewenstein, B. (2009). Belief in Progress. History of one European idea. Oikoymenh, Prague.
- Lom, F. (1930). Private economy during the crisis of the 19th century in Bohemia. Agricultural Institute of Accounting and Administration, Prague.
- Lom, F. (1979). Consequences of capitalist crises in small-scale agricultural production. Agricultural Museum, Institute of Scientific and Technical Information, Prague.
- Pepper, D. (1996). Modern environmentalism. Routledge, London.
- Petrá, J. and Petráová, L. (2000). Peasant in European traditional culture. SET OUT, Davle.
- Šindláová, J. (1997). Sociology of rural areas and agriculture. Mendel University of Agriculture and Forestry, Brno.
- Prokpek, J. A. (1899). Czech peasant. An informative book for young farmers. J. Otto, Prague
- Richter, J. (1864). Horský field sermon on February 15, 1864 in Rokycany in the first Assembly of the Rokycany-Blovic District Economic Association. Jind. Mercy Publ, Prague
- Wuketits, F. M. (2006). Natural disaster named man. Development without progress. Granite, Prague.
- Zeithamer, L. M. (1874). Main principles and rules of rational economy. I.L. Kober, Prague