Economic Propedeutics

Agriculture and the environment – agricultural revolutions in the history, importance of agriculture for European society, meaning and development of the environmental question; green revolution; agriculture in developing world
England

• Except of classical explanation (Ley farming and introduction of technical inventions in connection to the Industrial revolution), a very important step forward was the fencing and enclosing of farms, supported by the Crown.
For United States, it was crucial to multiply its, on extensive growth based agriculture, with technical inventions like cotton-gin in the 18th, combined harvester and tractor in the 19th Century.

1862: Homestead Act legalized squatters land owning rights
Prussia – Germany

- State support of technical knowledge
- Colonization of poorly populated areas
- Tax benefits for the incoming farmers
- Soil cultivation
- Big introducer of potatoes (together with Ireland)
• Real changes came with the agrarian reform in the beginning of the 20th Century – people from relatively overpopulated regions migrated to Central Asia and south Siberia.
Green Revolution
• Introduction of chemical fertilizers, pesticides and insecticides

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\begin{align*}
\text{chloral} & \quad + \quad 2 \quad \text{chlorobenzene} & \quad \rightarrow & \quad \text{DDT} & \quad + & \quad \text{H}_2\text{O}
\end{align*}
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• Mechanization (watering system, harvesting)
• Deriving new sorts of crops, sustainable for a worse type of climate (for example grain for Canada or Scandinavia)
Negative effects of the Green Revolution

- Using of chemicals - negative effect on the health of humans and animals (DDT).
- Unknown effects of the genetic manipulation
- Destruction of woods and erosion of soil
- Overusing water supplies (for example Silicon Valley)
- Greenhouse gases (livestock)
- Globalization of economics endangers several species
Chances for the Third World

• Rational using of the Artesian aquifer
• Relatively harmless, cheap and effective pesticides
• Genetically improved crops
• **Microlivestock** instead of cows and pigs – guinea pigs, agoutis, greater cane rats