

An example of earlier change:

English Agriculture: 1500-1850

taken from:

Agricultural Revolution in England

the transformation of the agrarian economy

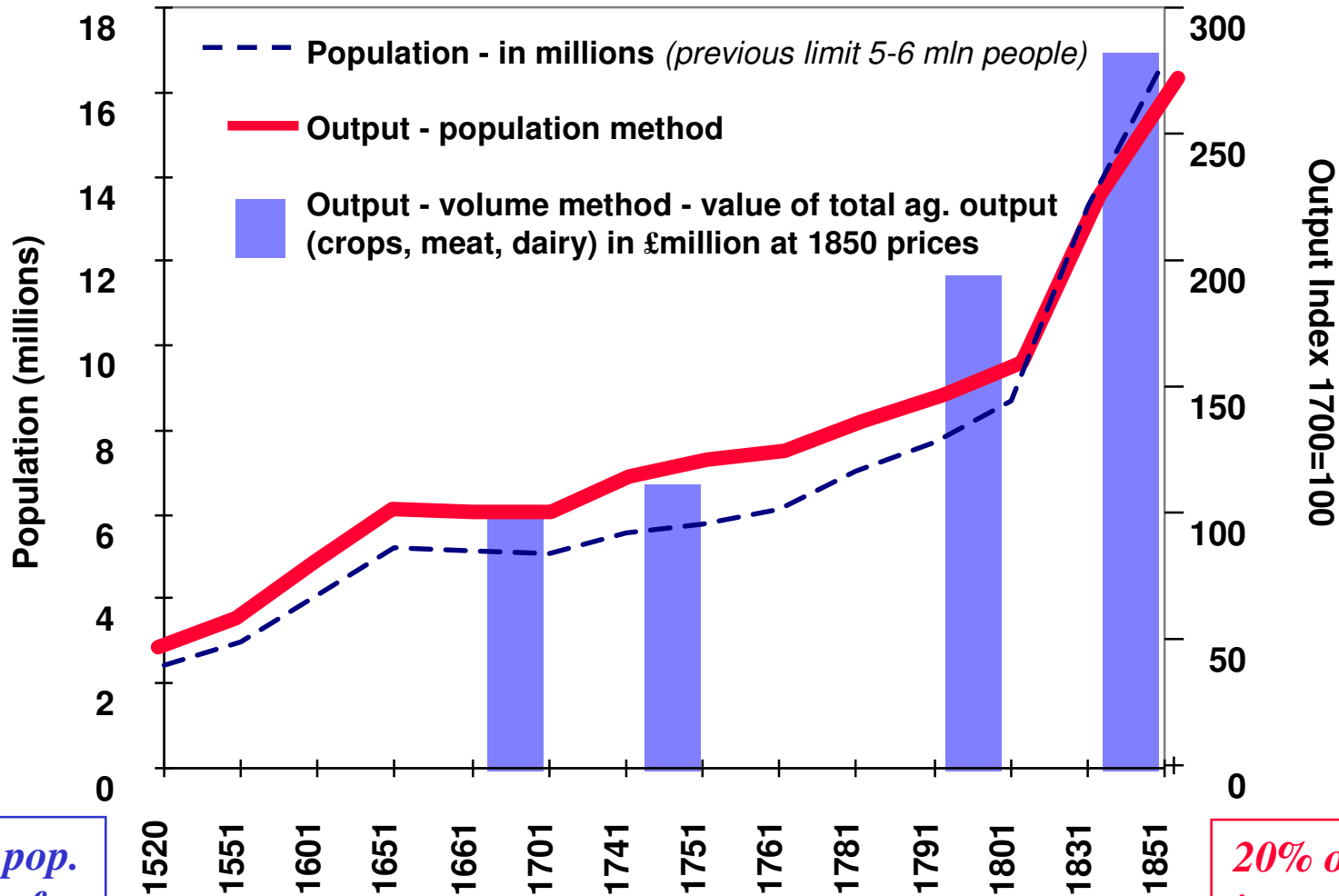
1500-1850

by

Mark Overton

Cambridge University Press, 1996

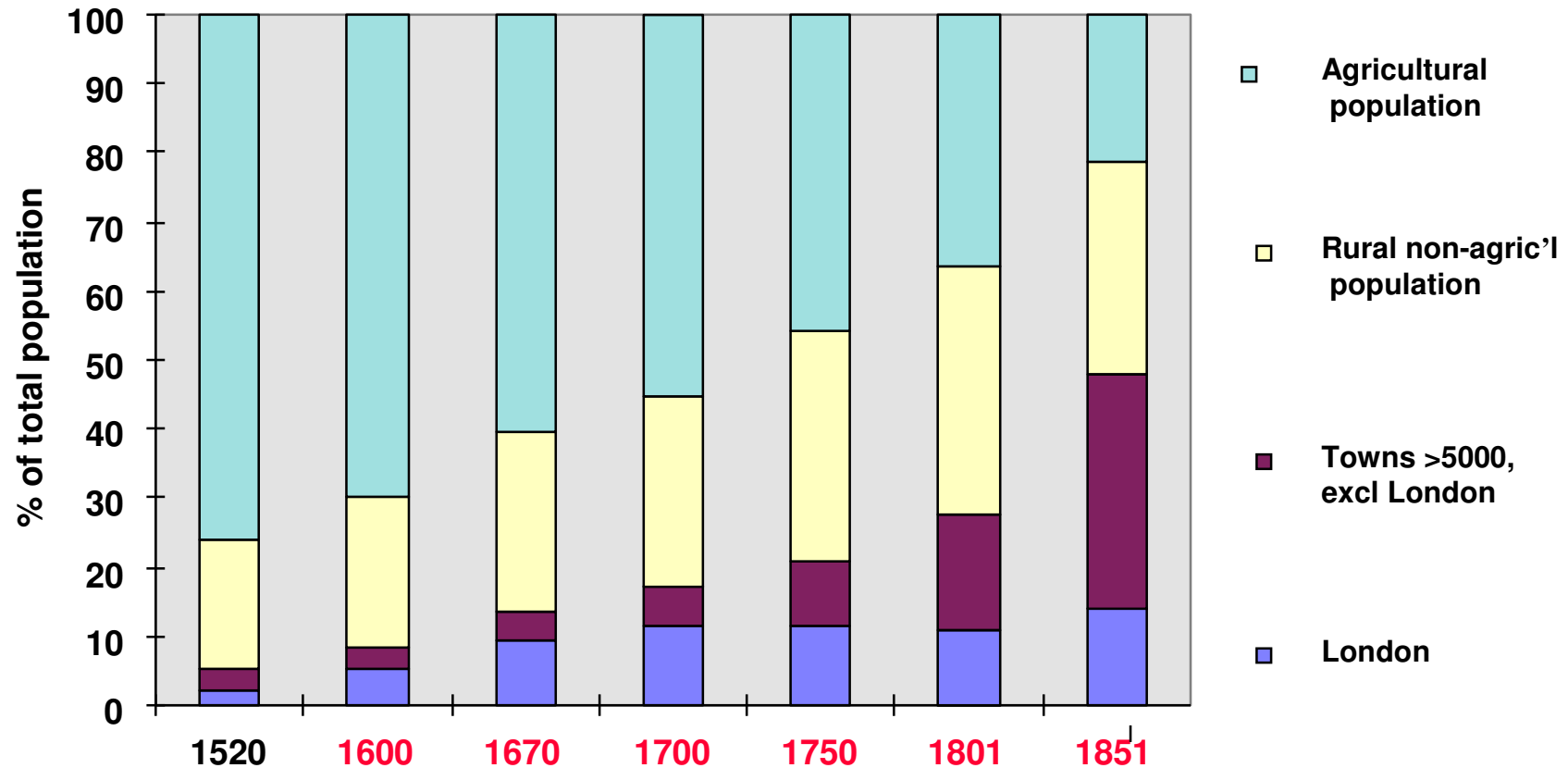
Estimates of English Agricultural Output 1520--1850



80% of pop. in agric. for own family

20% of pop. in agric. for markets

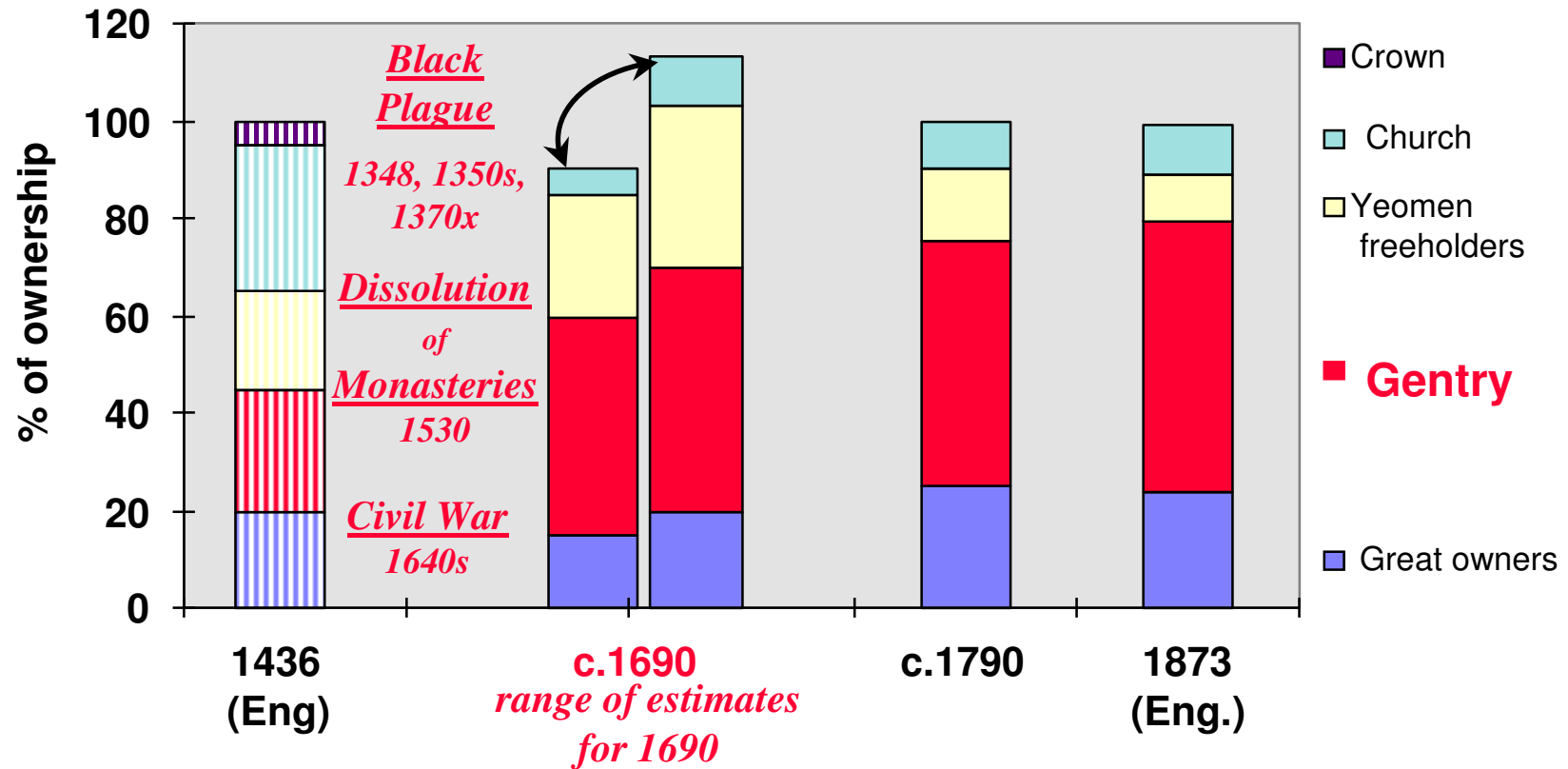
A Rising Demand for Food 1520-1851



“...the impact of London on the demand for food was greater than these figures indicate because average consumption per head in London was at least double the national average.”

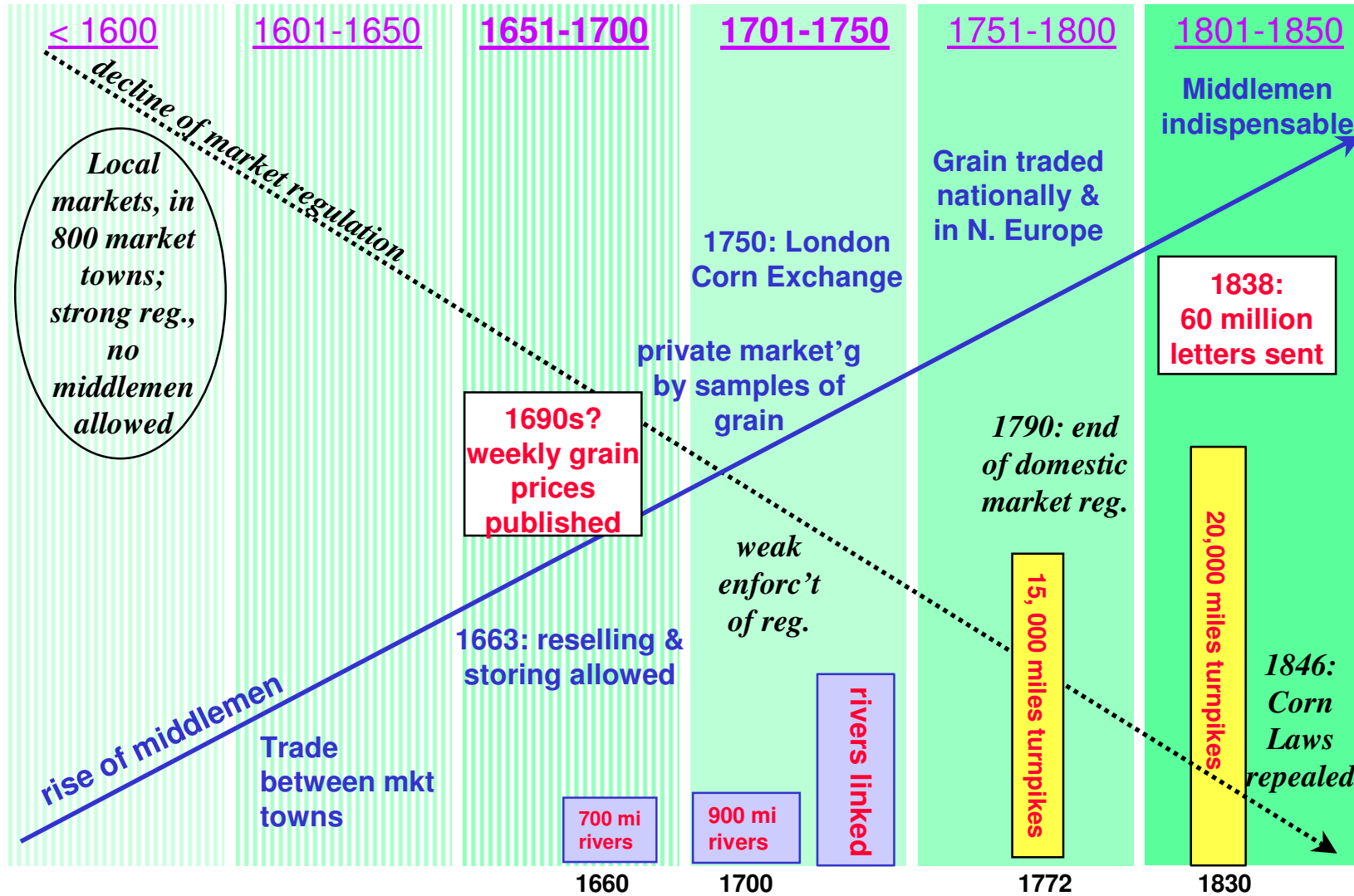
A Changing Social Structure

England & Wales 1436-1973



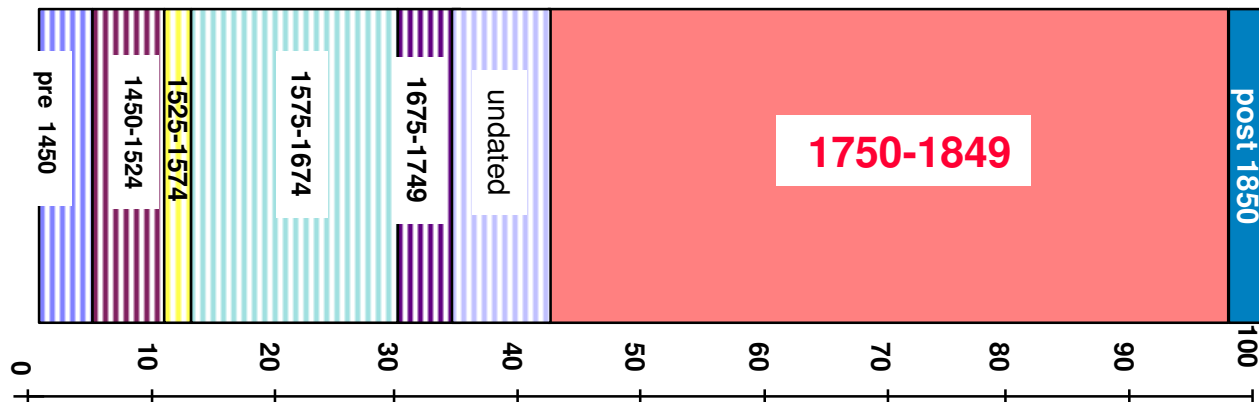
“The pioneers of new methods in the seventeenth and eighteenth centuries ... were not the great landowners but smaller farmers ... the most dramatic advances in output and land productivity came in those areas (such as Norfolk) where lordship was relatively weak.”

The Development of Markets



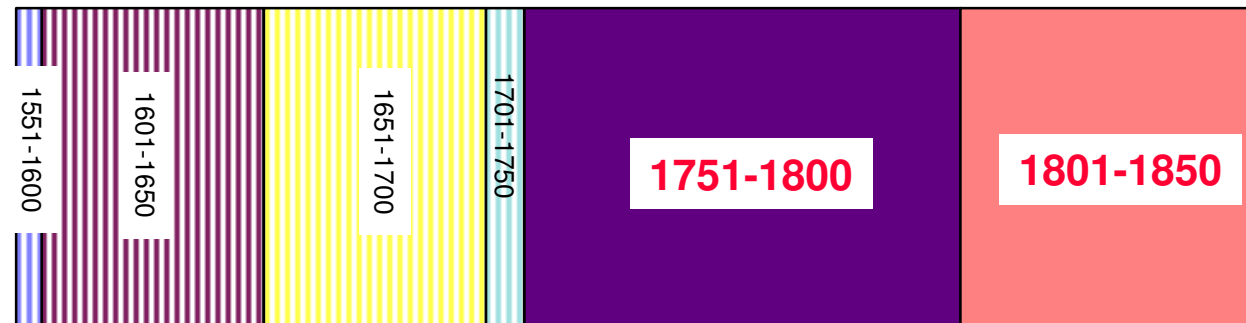
Controlling the Use of Land by Enclosures

South Midlands
1450-1850
 2,850,866 total
 enclosed acreage



% of enclosed acreage

County Durham
1551-1850
 184,733 total
 acreage enclosed



1660: Modern Law of Mortgage

“From the mid-eighteenth century the most usual way in which common rights were removed was through a specific act of parliament for the enclosure of a particular locality. ... Moreover the majority required for enclosure was calculated in terms of acres rather than landowners ... ”

“... the major upsurge in agricultural output and productivity came after the mid-eighteenth century: this coincides with the major burst of parliamentary enclosure.”

Value of Enclosures

“In short, the farmer on enclosed land, in Kalm’s words, ‘could in a thousand ways improve his property and earn money.’

[because]

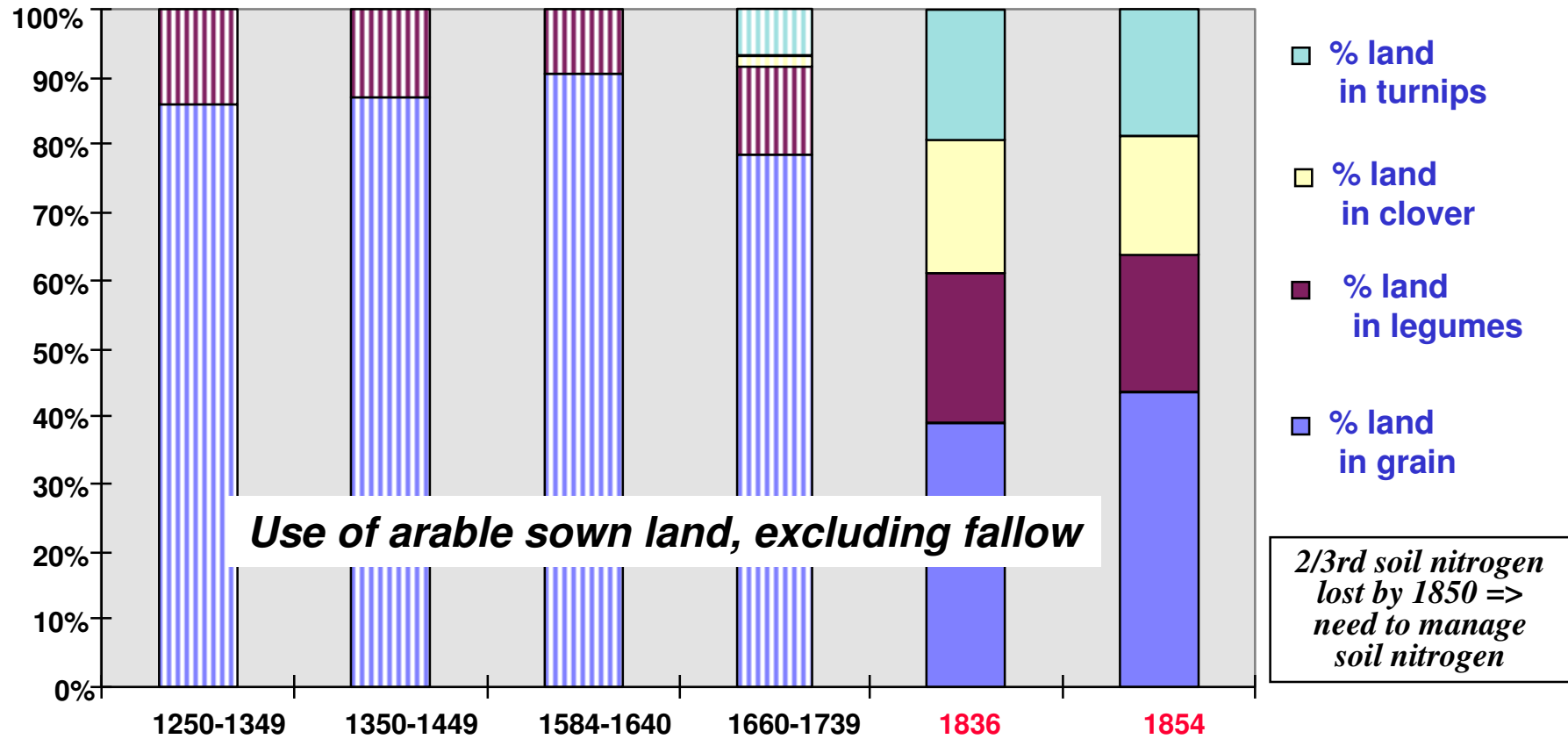
“the return on investment made in that land by an individual would accrue to that individual and not to the community as a whole.”

Development & Diffusion of Technology

< 1600	1601-1650	1651-1700	1701-1750	1751-1800	1801-1850	1851-1900
DIFFUSING				<p><u>1770s</u> Jethro Tull seed drill imitated</p> <p><u>1790s</u> R'm plough made in local foundaries</p>	<p>Norfolk system* spreads widely</p> <p><u>1835</u> scythes widespread</p> <p><u>1830s</u> ag. engin'g indus. dev'd</p>	<p><u>1870</u> 80% of wheat harvest'd with scythes</p> <p><u>1850s</u> seed drill widely used</p>
LEARNING			<p>Upsurge in ag. writing</p> <p><u>1664</u> Royal Society studies ag. practices</p>	<p><u>1767</u> Royal Lancashire Ag. Society</p> <p><u>1770s</u> 1st local farmers' assoc.</p>	<p><u>1845</u> Cirencester Ag'l College</p> <p><u>1838</u> Royal Ag. Society of Eng.</p> <p><u>1803</u> 23 local farmers' assoc.</p>	<p><u>1850s</u> wide range of farm'g journals: 17,000 readers</p> <p><u>1855</u> 700 local farmers' assoc.</p>
INTRODUCING				<p><u>1731</u> Jethro Tull's seed drill</p> <p><u>1730</u> new R'm plough patented</p>	<p><u>1799</u> scythes introduced in S. Engl'd</p>	
<p><u>1500s</u> designs for seed drills published</p>	<p><u>1630</u> turnips* known as fodder crop</p>	<p><u>1650s</u> clover* appears as fodder crop</p>				

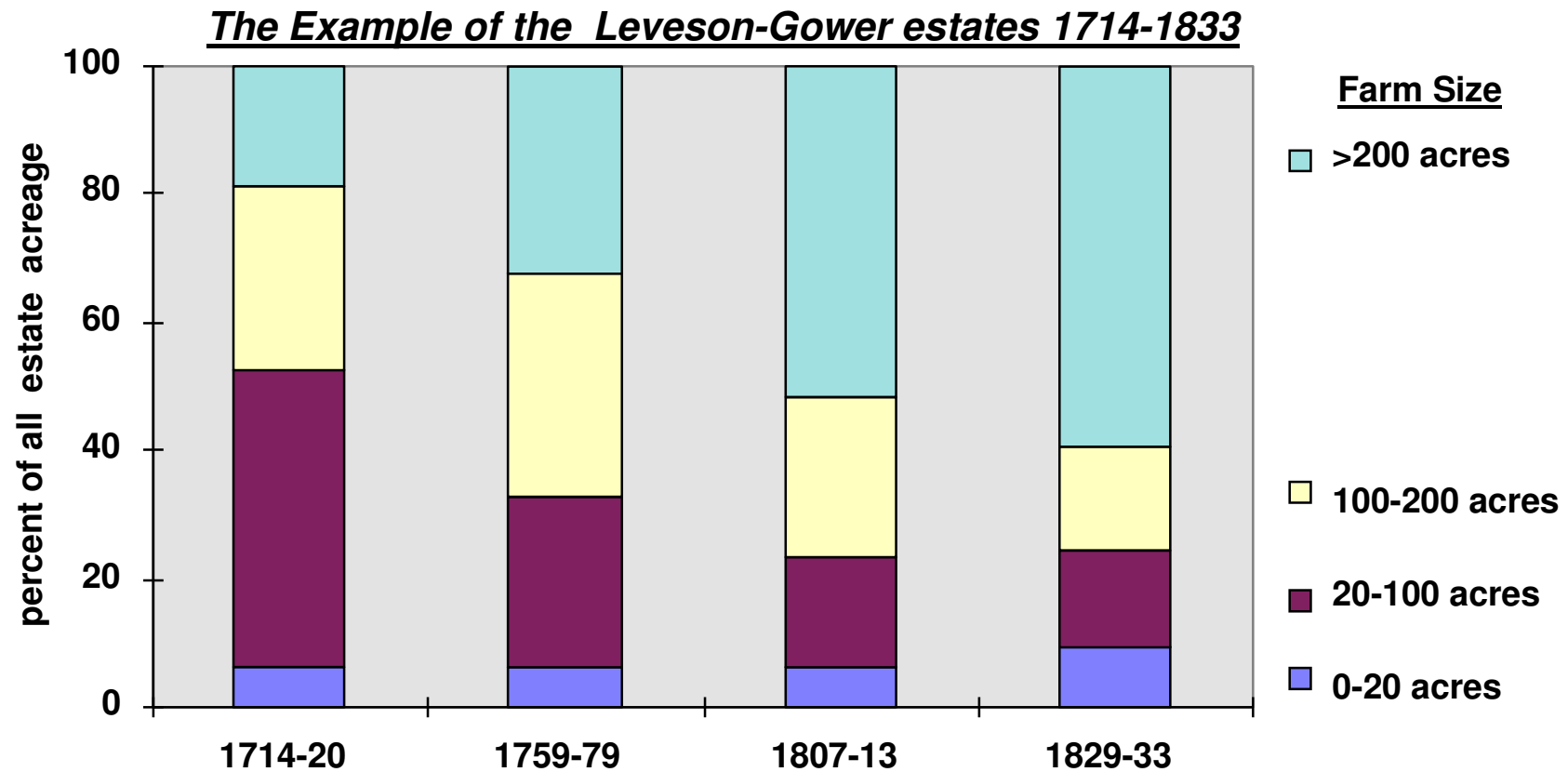
Changes in Farming Techniques

Norfolk 1250-1854



“Partly because these integrated mixed-farming systems comprised so many mutually dependent components their evolution took time. Hence the long lag between the appearance in England of clover, turnips and the other components of the Norfolk four-course system and the perfection of the system itself, whose widespread diffusion must be dated to the first half of the nineteenth century.”

Larger Farms, Fewer Farmers 1714-1833



The Sequence of Change 1500-1850



Time Lags in the Agricultural Revolution

“Partly because these integrated mixed-farming systems comprised so many mutually dependent components their evolution took time. Hence the long lag between the appearance in England of clover, turnips and the other components of the Norfolk four-course system and the perfection of the system itself, whose widespread diffusion must be dated to the first half of the nineteenth century.”

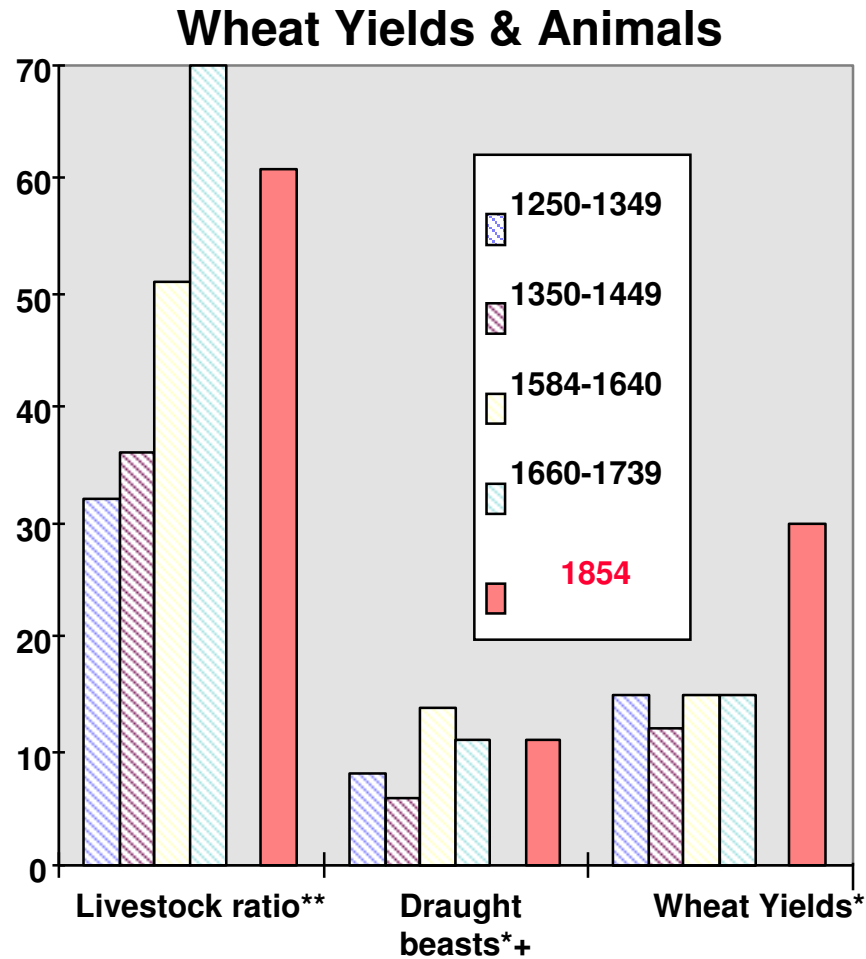
Mark Overton, 1996
Agricultural Revolution in England ... 1500-1850

detailed back-up slides follow

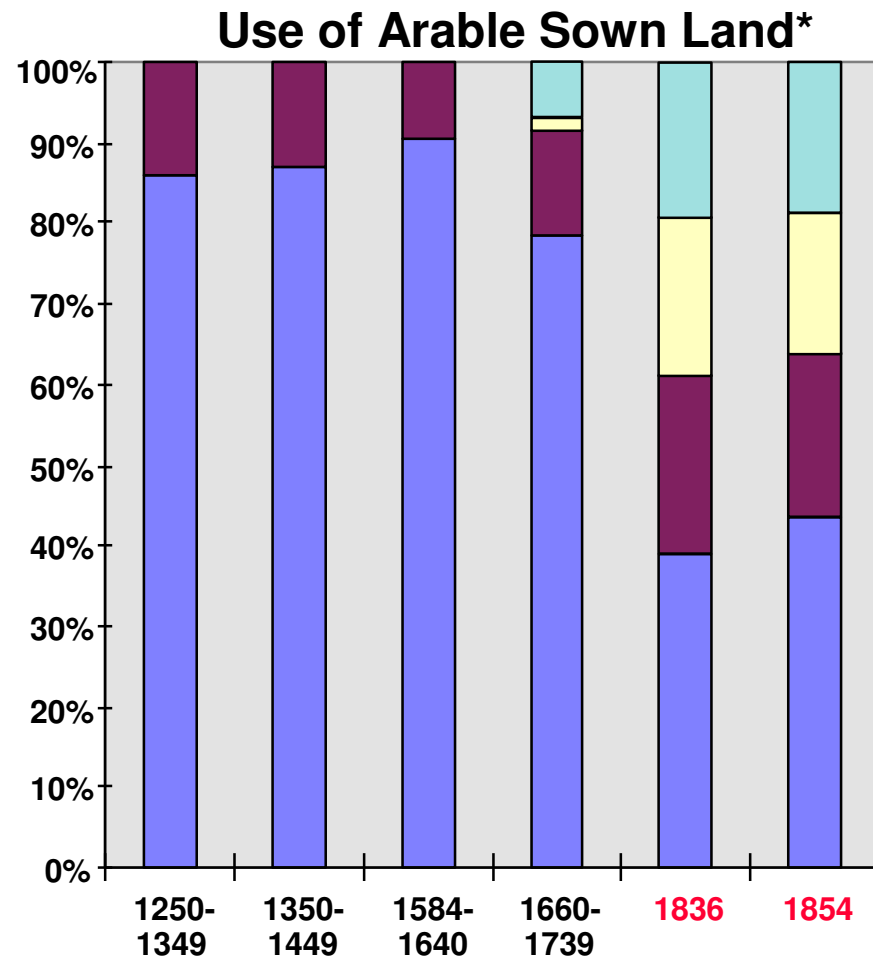
The Sequence of Change 1500-1850

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1. A rising demand/need
1520 *demand rising*
 2. Fluidity in social structure; willingness to experiment
1640s *Civil War*
 3. Development of informal markets to meet need:
1601-1650 *corn traded between market towns*
 4. Regulations adapt to informal market realities
1750 *London Corn Exchange*; 1790 *Domestic mrkt reg. ended*
 5. New property rights secure benefits of investment
1750-1850 *Parliamentary Enclosure Acts*
 6. Spread of technical knowledge & use
1770-1870 *diffusion of agricultural techniques*

Changes in Norfolk Farming 1250-1854



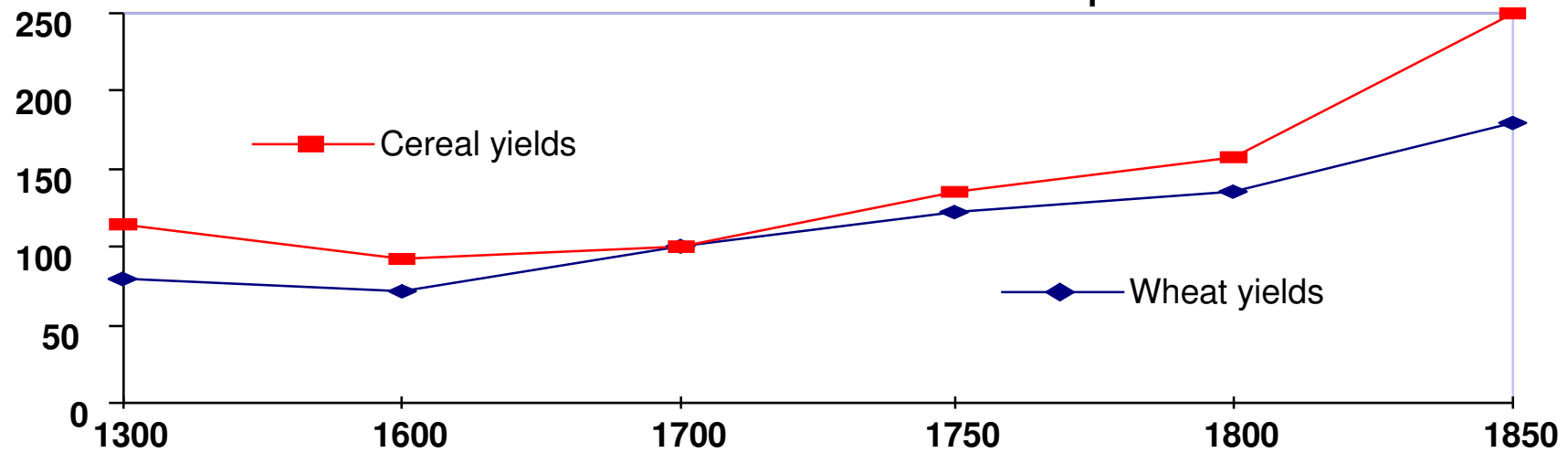
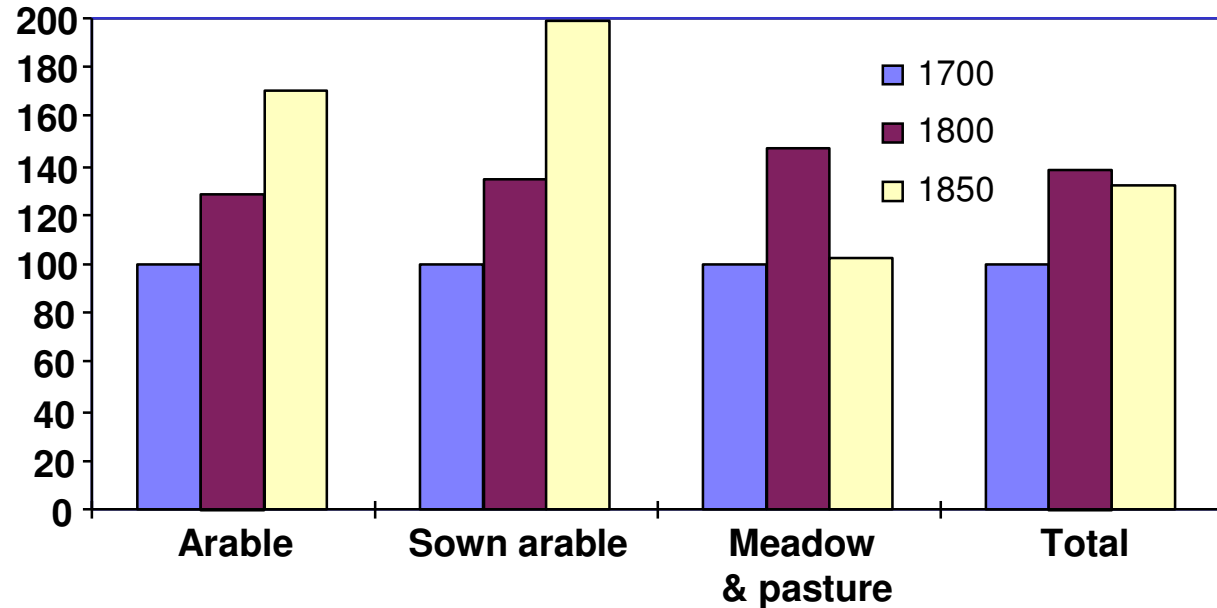
**Livestock units/100 acres
 *+ Oxen & horses/100 sown acres
 *Bushels of wheat/ acres



% Land in turnips % Land in legumes
 % Land in clover % Land in grain
 *Excluding fallow land

English Land Use & Yields 1300-1850

1700
= 100



Enclosing the Land 1450-1850

