Transcript of video introduction to series of lectures titled, *The Industrialization of Agriculture*

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| Imagine a world where a factory, formerly used to make semiconductors, is now producing more than 10,000 heads of lettuce each day, completely indoors. Special lights substitute for sunshine, and the roots do not grow in soil, but a nutrient broth. |  |
| Or, imagine a dairy farm where 180 cows are fed, milked, and cared for by robots. |  |
| Just think of a world where plant breeding has created so much value that some tomato seeds are worth twice their weight in gold. |  |
| Imagine a farmer who can now track the exact location of her cows using aerial drones. |  |
| Think of a world where food has become so industrialized that a lovely and delicious cake can be created using a 3-D printer. |  |
| What I have described is not the future, but the practices used by the avant-garde farmers and food processors of today. They are real technologies. They seem futuristic today, but might seem ordinary in 20 years. All of these technologies represent industrialization, where advanced science and machinery are applied to improving agricultural productivity. If you think agriculture is industrialized now, just wait two decades and you will see industrialization on steroids. |  |
| Not all of these technologies may prove feasible, and I know enough not to try and predict the future. In 1970 a group of experts drew a picture of the “farm of the future.” Some parts were right, like the use of drones. Other parts were wrong, like the idea that cattle would be raised in multi-story facilities resembling car garages. So maybe dairy cows really will be cared for by robots one day. Maybe they won’t. But instead of predicting the industrialization of the future, let’s talk about something we do know about: the industrialization of the past. |  |
| The next set of lectures are all about the industrialization of agriculture. They discuss how agriculture evolved from a peasant-style using traditional methods and animal labor, to a system with large farms using expensive machinery and advanced science. You cannot understand modern agriculture without understanding the industrialization of agriculture. |  |
| But, as you will see, there is no unique style of industrialization. The first five articles describe agriculture as it evolved in western democracies where the public and private sectors cooperated in some ventures and act independently in others. This has proven a successful form of industrialization. |  |
| The sixth article concerns how agriculture was industrialized in communist Russia and China. This alternative style of industrialization attempted to eliminate the private sector entirely, and it proved a tragedy, resulting in many deaths. |  |
| Agriculture will continue to industrialize, but we must make sure it does so to the benefit of the common good. This requires us to understand the types of industrialization that works, and the types that do not. It is my hope that these lectures help you to make this distinction. |  |
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<h3><b>Quotation 7&#8212;Steinbeck on industrial food</b><br>

&#147;Even while I protest the assembly-line production of our food, our songs, our language, and eventually our souls, I know that it was a rare home that baked good bread in the old days.&#148;

<br>&#8212;Steinbeck, John. 1962. <i>Travels With Charlie: In Search of America.</i> Penguin Books: NY, NY. Page 83.

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<https://www.youtube.com/watch?v=qZEwsciFnpY>

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