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JOHNS HOPKINS
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Section G: Potential Solutions

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The Netherlands

- Lots of food animals and very little land
 - 10,000,000 hogs; 81,000,000 chickens; and 2,400,000 dairy COWS
- Two-year moratorium
- Mineral accounting system
 - Similar to a nutrient management plan
 - Large operations affected
 - Minimal costs to small farmers
- Livestock buyout program
- Results indicate that voluntary programs don't work

Interventions

- Remove antimicrobials used for growth promotion
 - Done effectively in Europe
- Control stocking density
 - Hoop housing vs. non-bedded confinement system

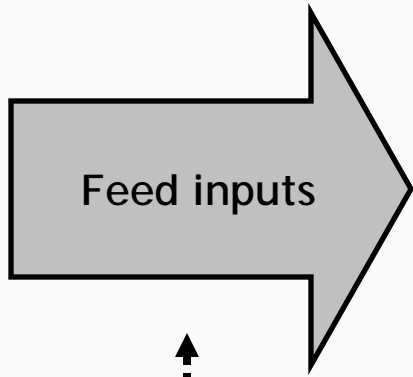
Interventions (cont.)

- Control geographic concentration
- Handle waste in dry form
- Move toward pastured operations
 - Some land not suited for crops
- Control global transformation of the livestock sector in developing countries

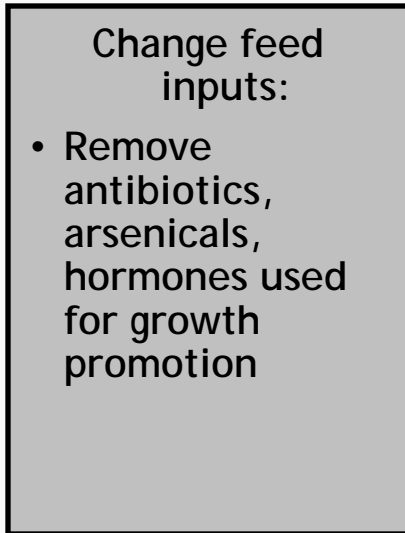
Interventions (cont.)

- Moratorium on operations in vulnerable watersheds
- Develop incentives to improve management (e.g., fines)
- Treat waste prior to land application
 - Methane digesters, pelletization, and composting
- Establish a moratorium on all new CAFOs

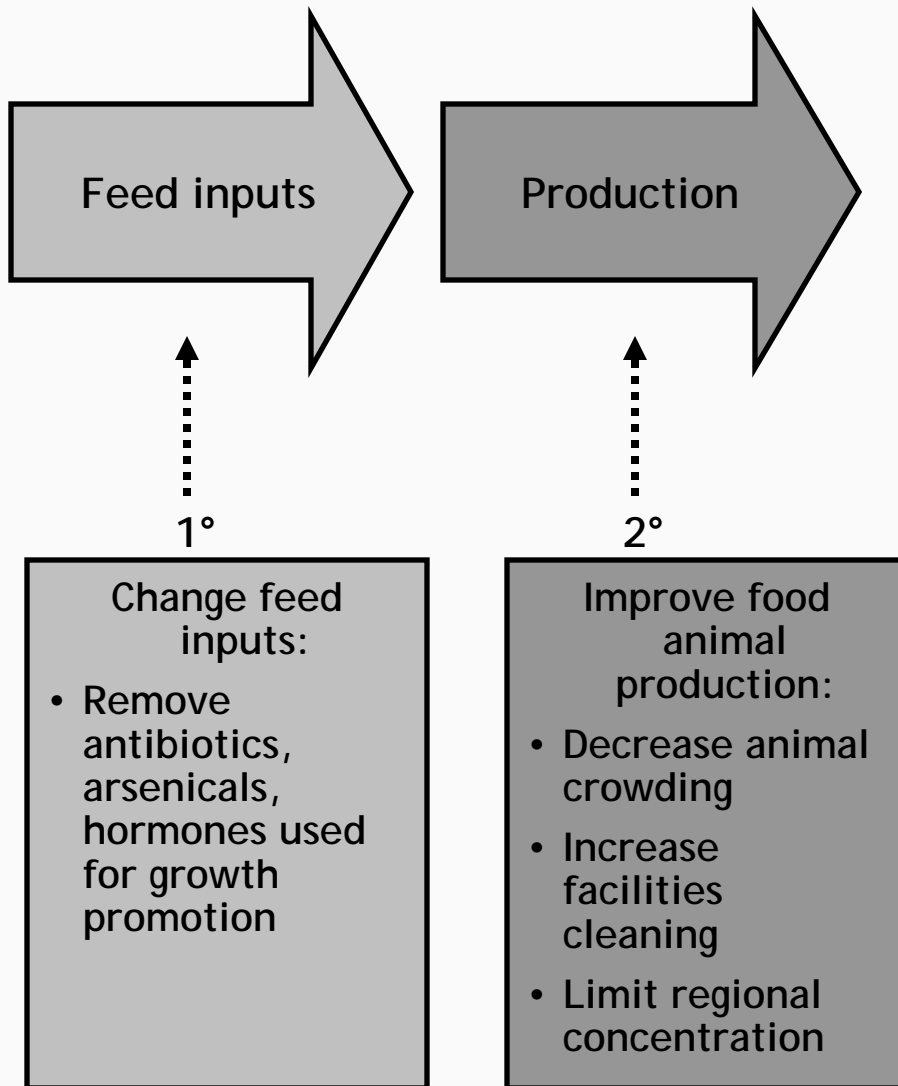
Levels of Control



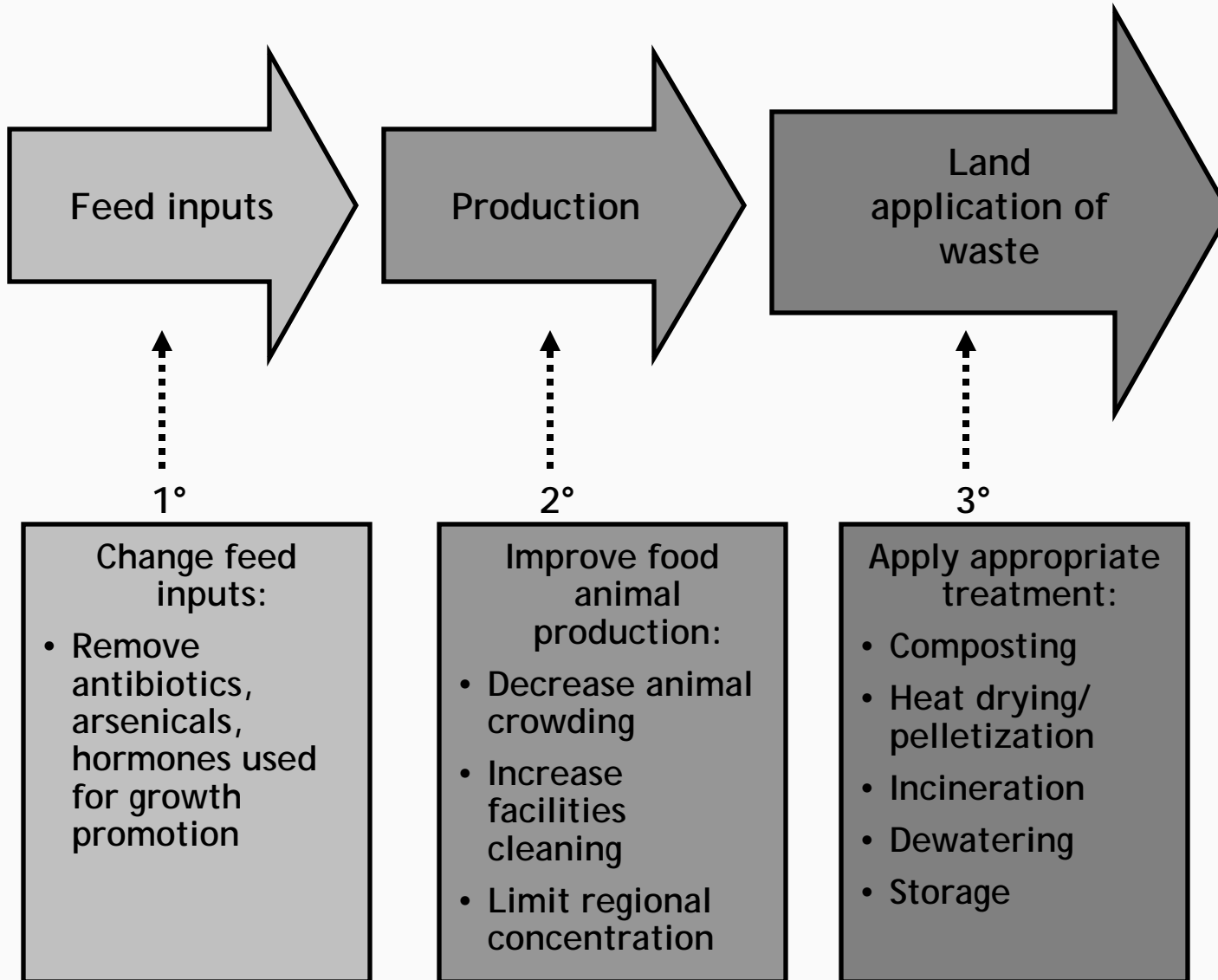
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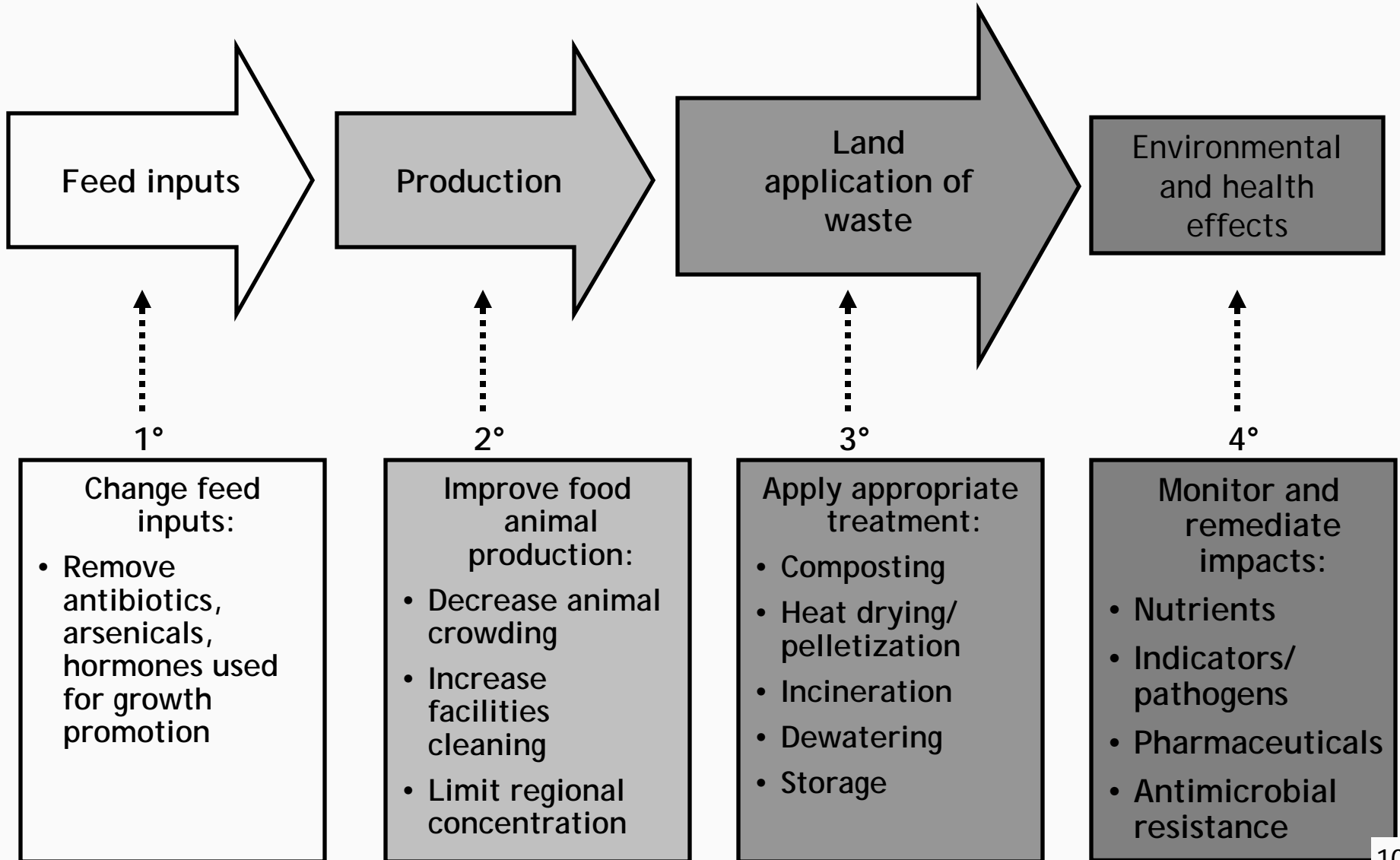
Levels of Control



Levels of Control



Levels of Control



- Sanitation voted greatest medical advance since 1840
 - 11,300 readers of the *British Medical Journal* chose the introduction of sewage disposal (the sanitary revolution) as the most important medical milestone since 1840