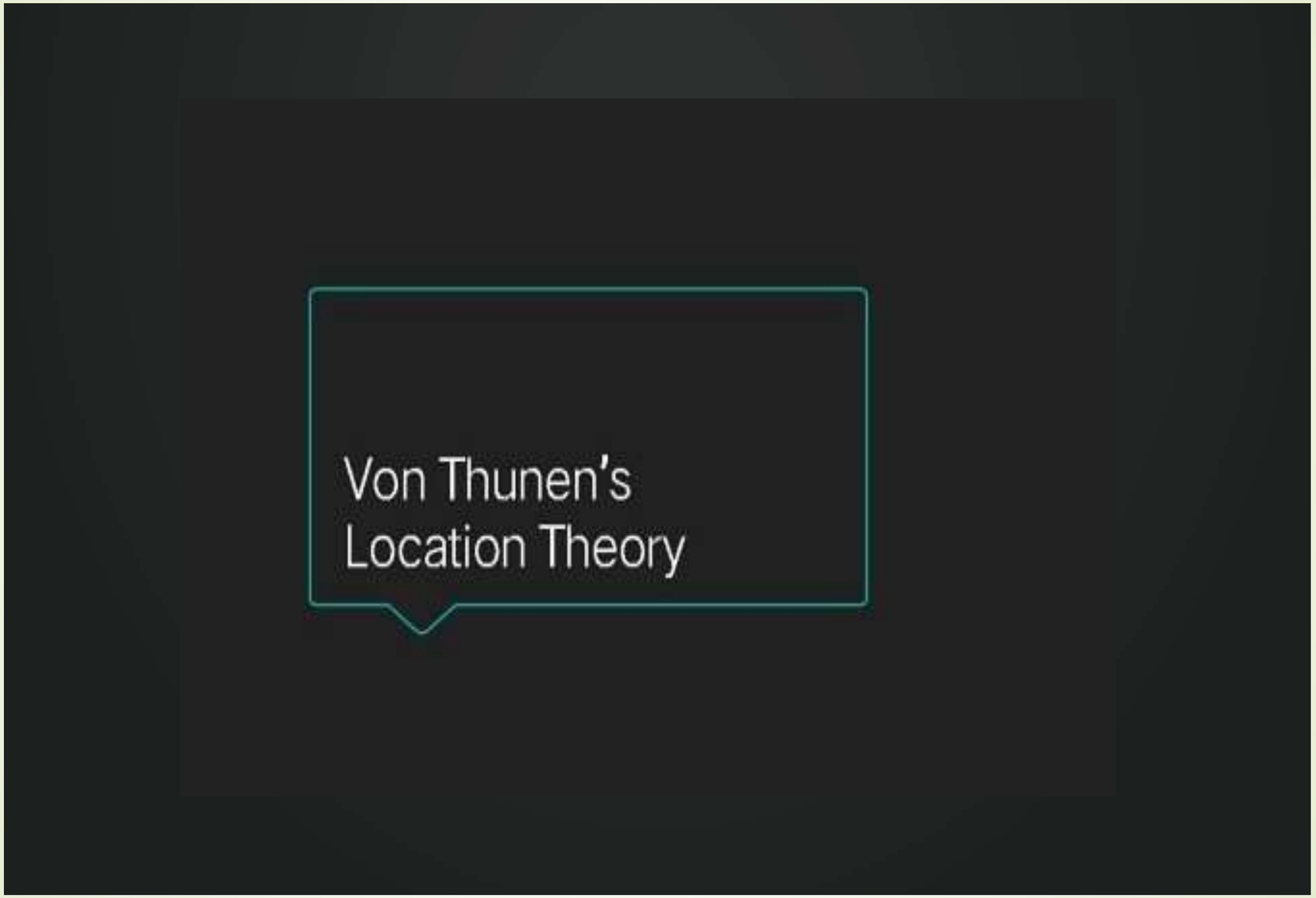
1. Von Thunen's Location Theory
2. Sinclair's Theory
3. Olof Jonasson's Theory

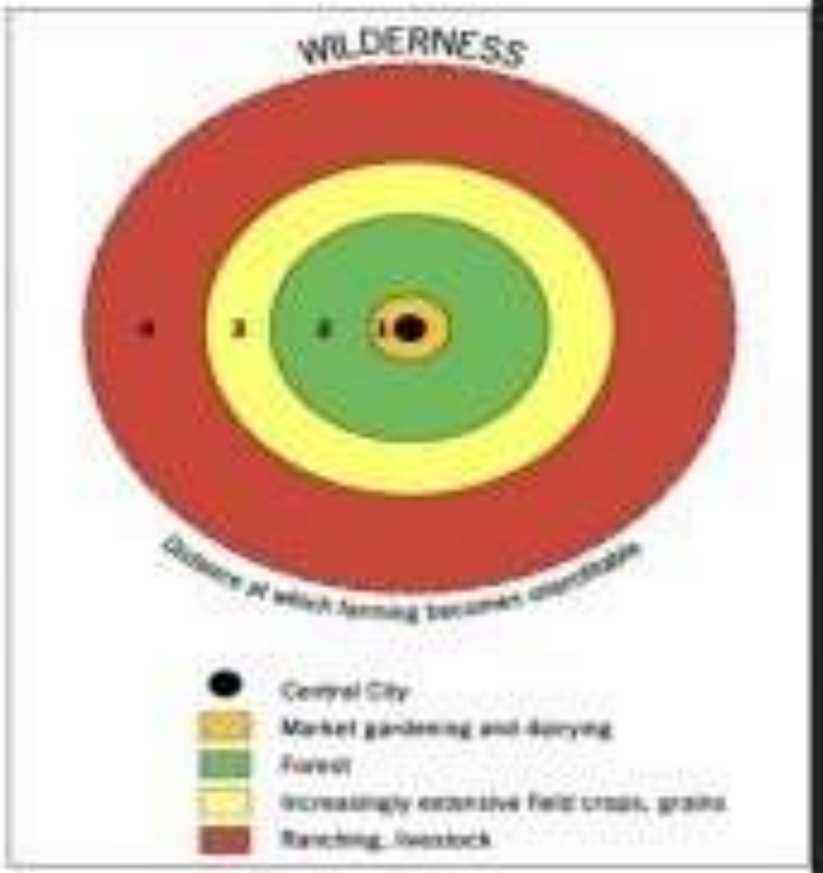
Theories in Agricultural Geography

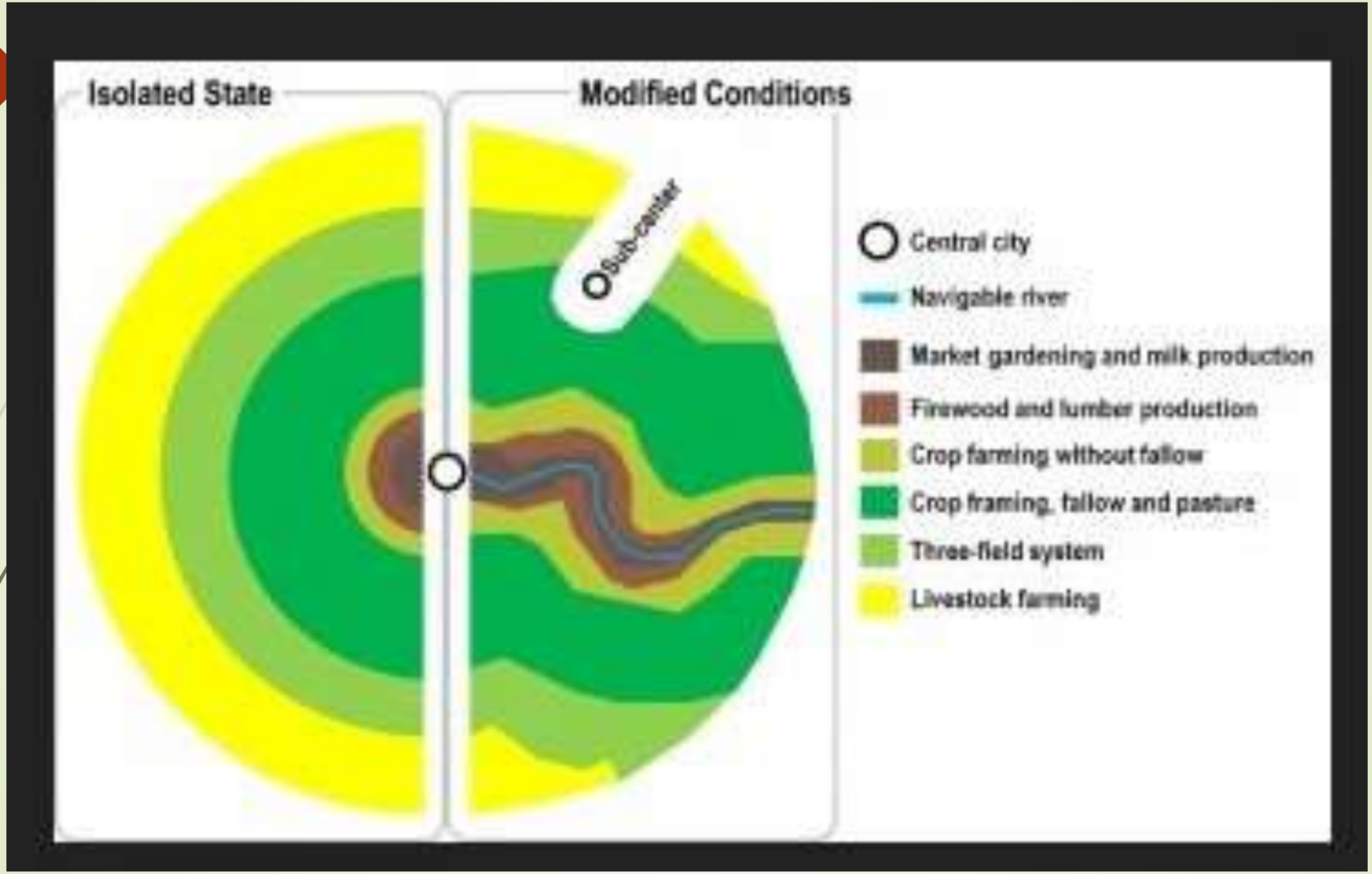

Von Thunen's
Location Theory


Ranching and Livestock
Grains and Field Crops
Forests
Dairy Farming
Urban Center
Market
Market Gardening
MODEL

Von Thunen Model

- Von Thunen Model
  - What farmers produce varies by distance from the town, with livestock raising farthest from town.
  - Cost of transportation governs use of land.
  - First effort to analyze the spatial character of economic activity.




Isolated State
Modified Conditions
Sub-center
Central city
Navigable river
Market gardening and milk production
Firewood and lumber production
Crop farming without fallow
Crop framing, fallow and pasture
Three-field system
Livestock farming

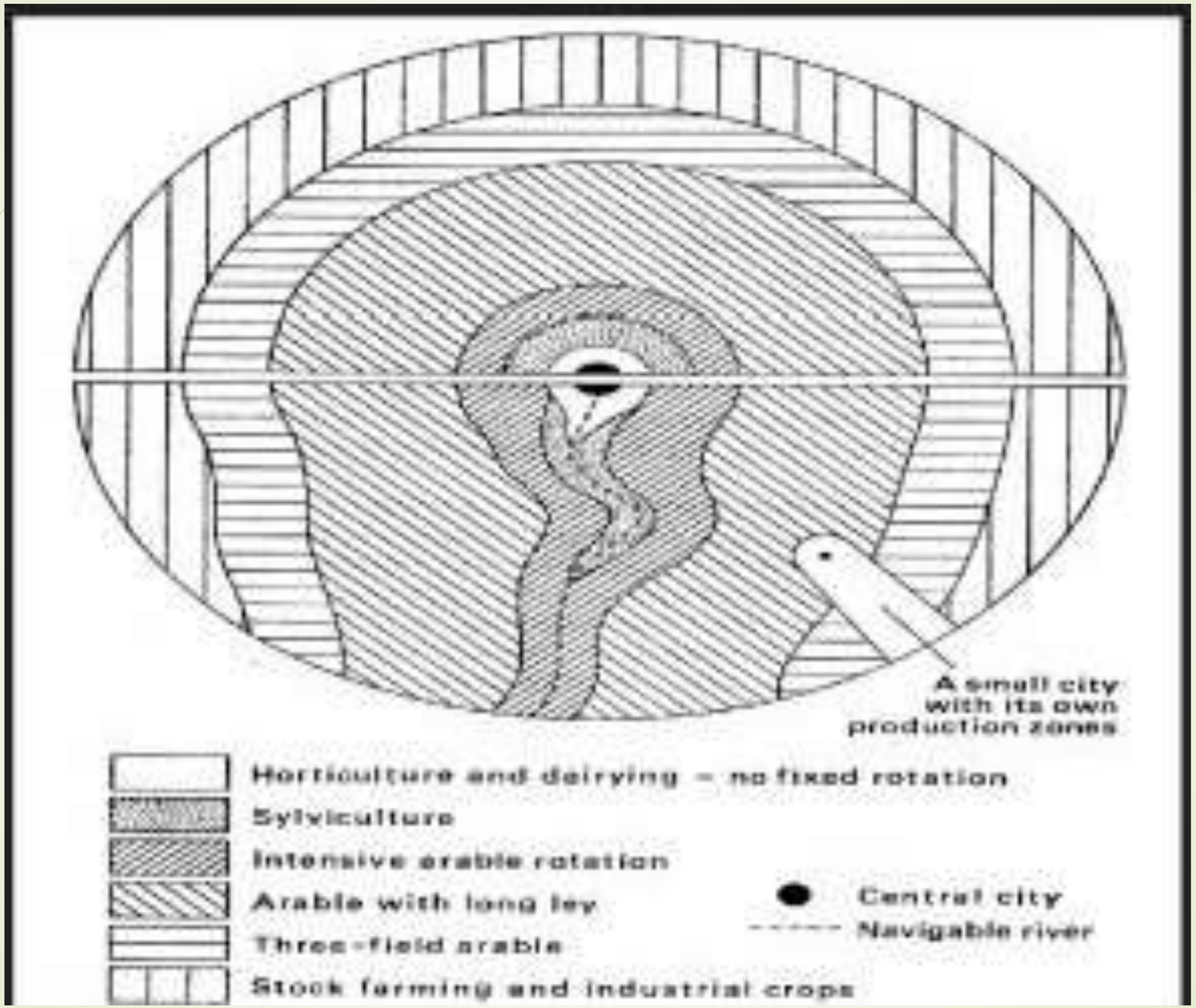

A small city with its own production zones
Horticulture and dairying – no fixed rotation
Sylviculture
Intensive arable rotation
Arable with long ley
Three-field arable
Stock farming and industrial crops
Central city
Navigable river

Figure 14.2

Stages of formation of the agricultural landscape in von Thunen's model

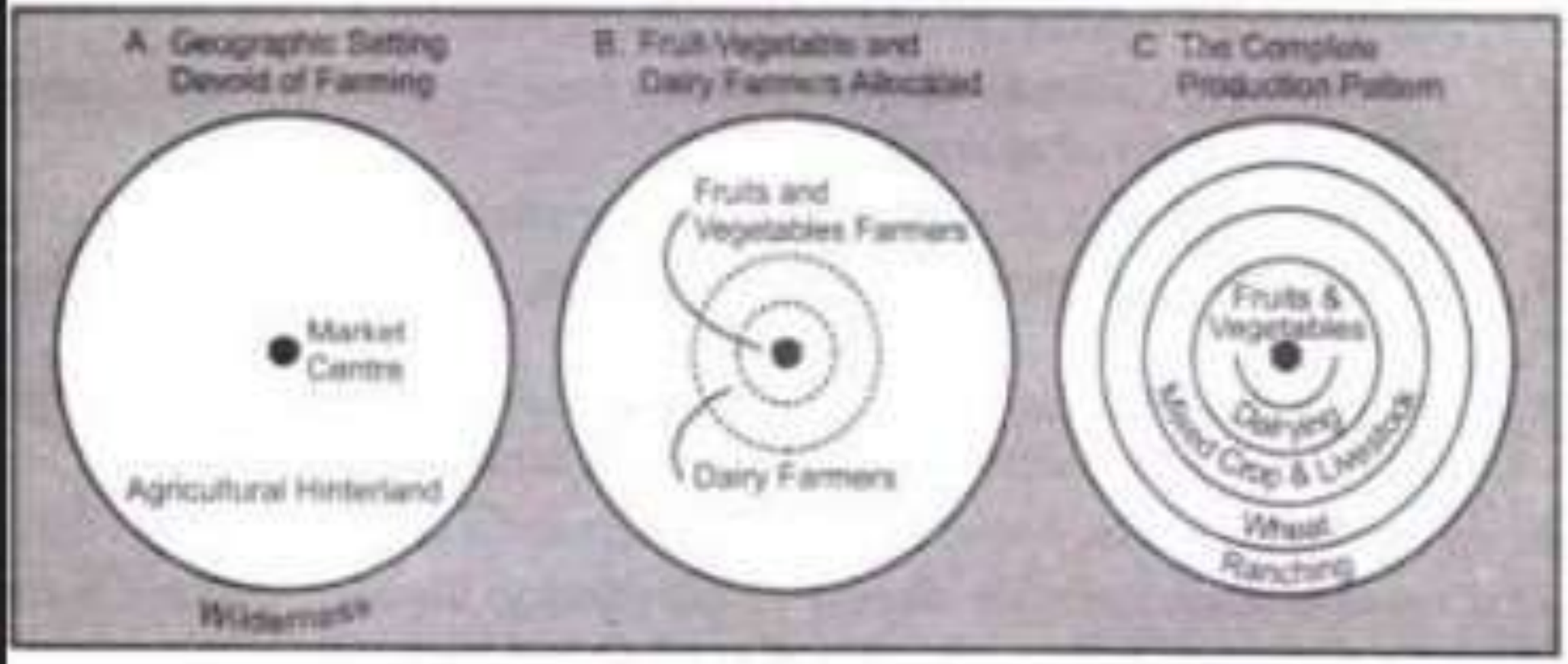


Figure 14.8

Location of two market centres and general land use pattern

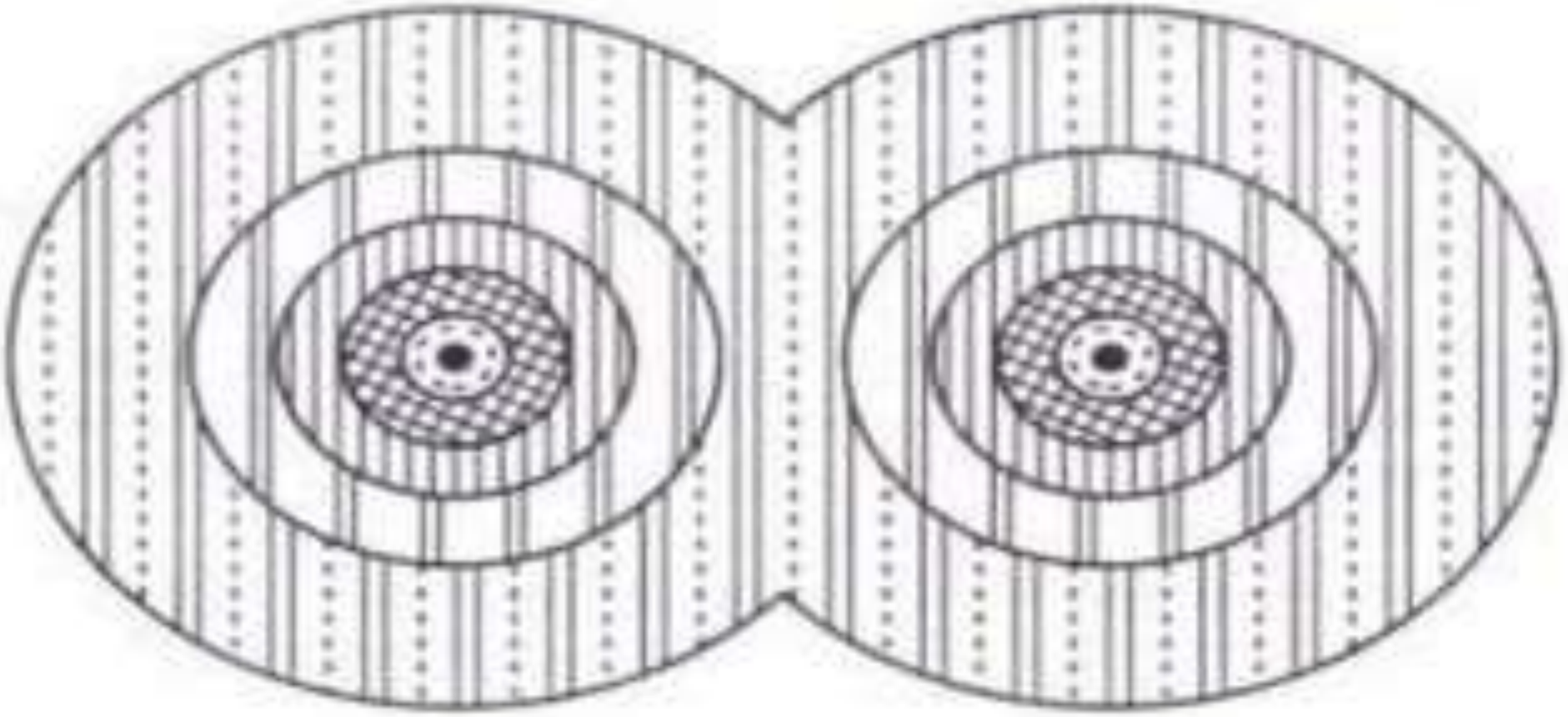


Figure 14.9

Location of three market centres and land use pattern

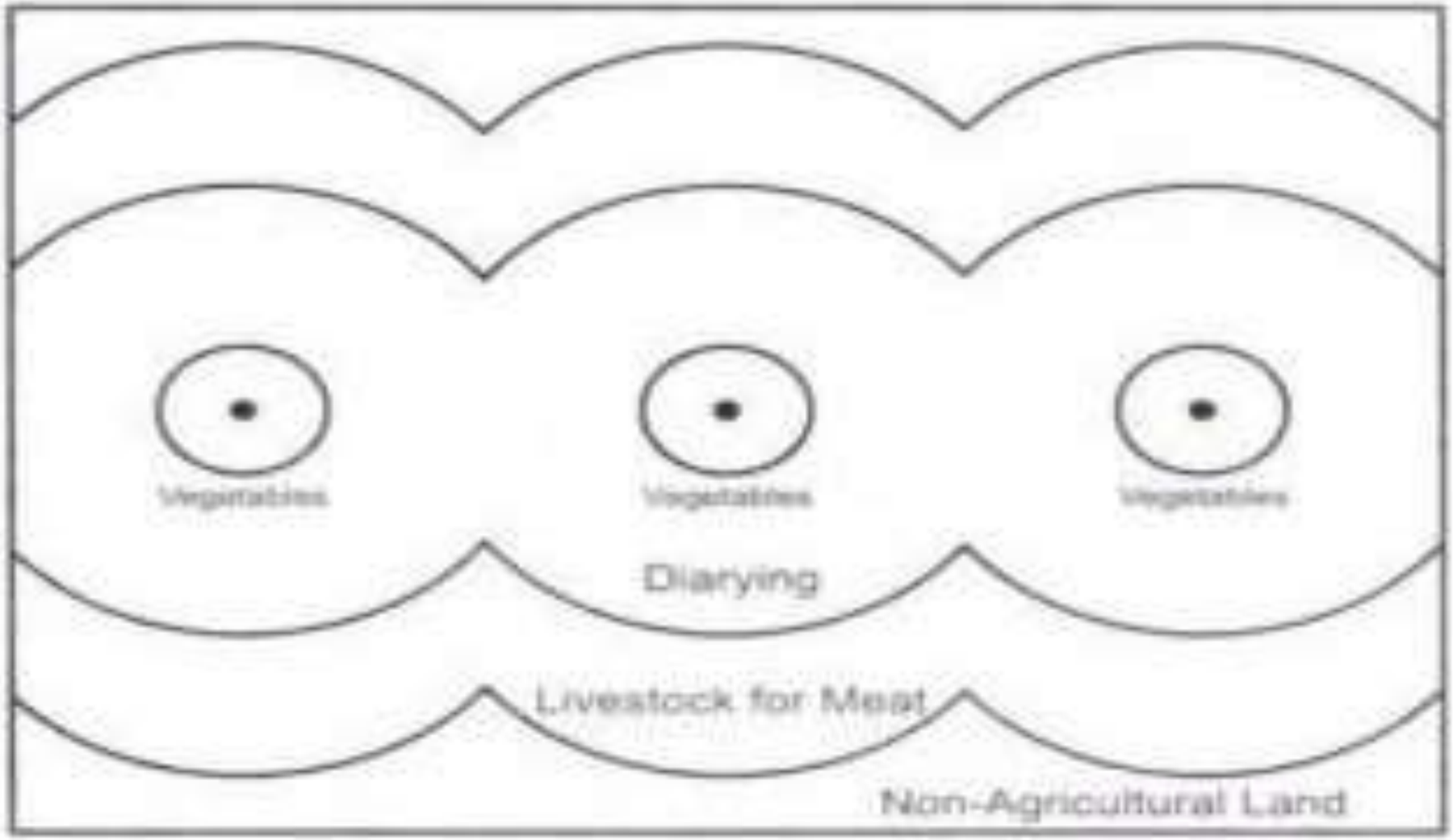


Figure 14.10

Location of several market centres and land use pattern

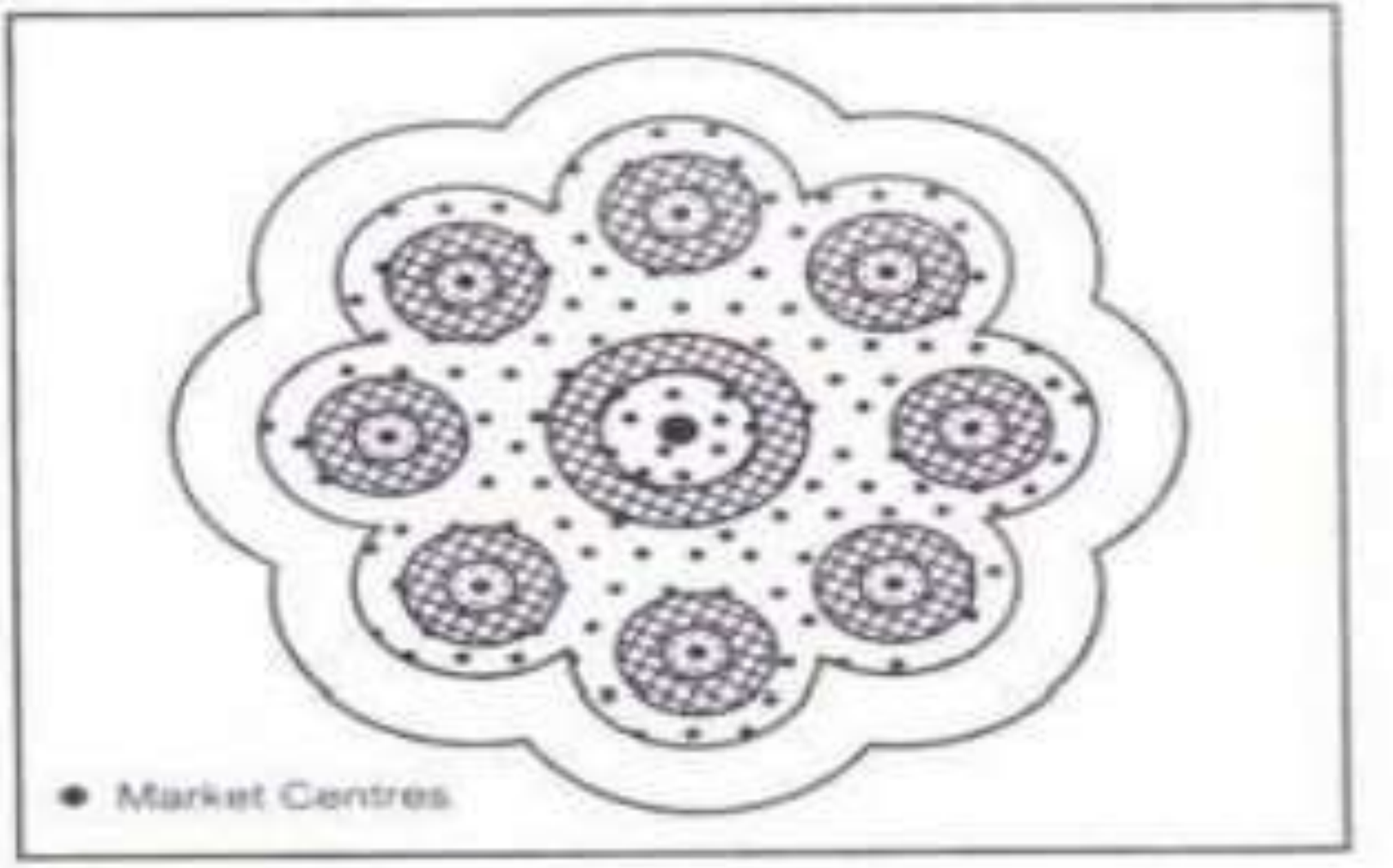
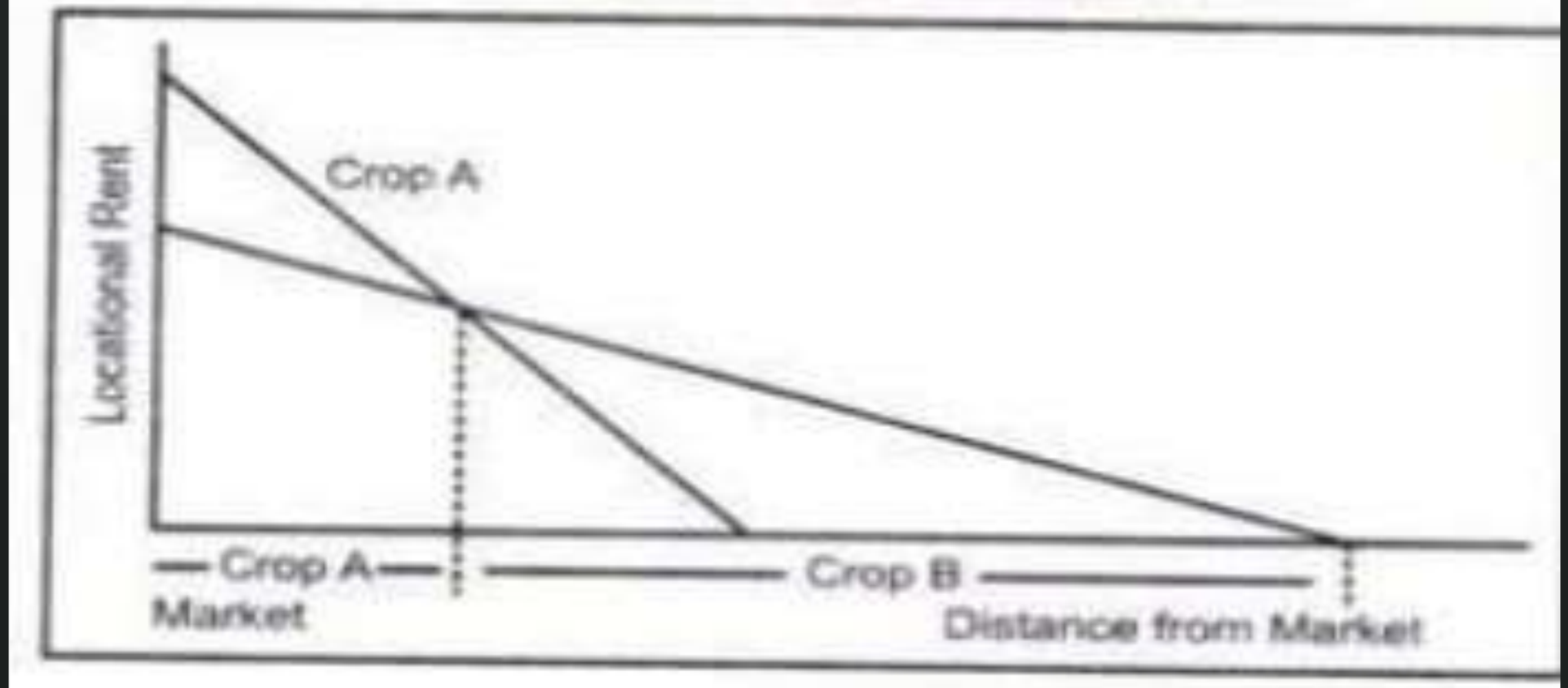


Figure 14.1

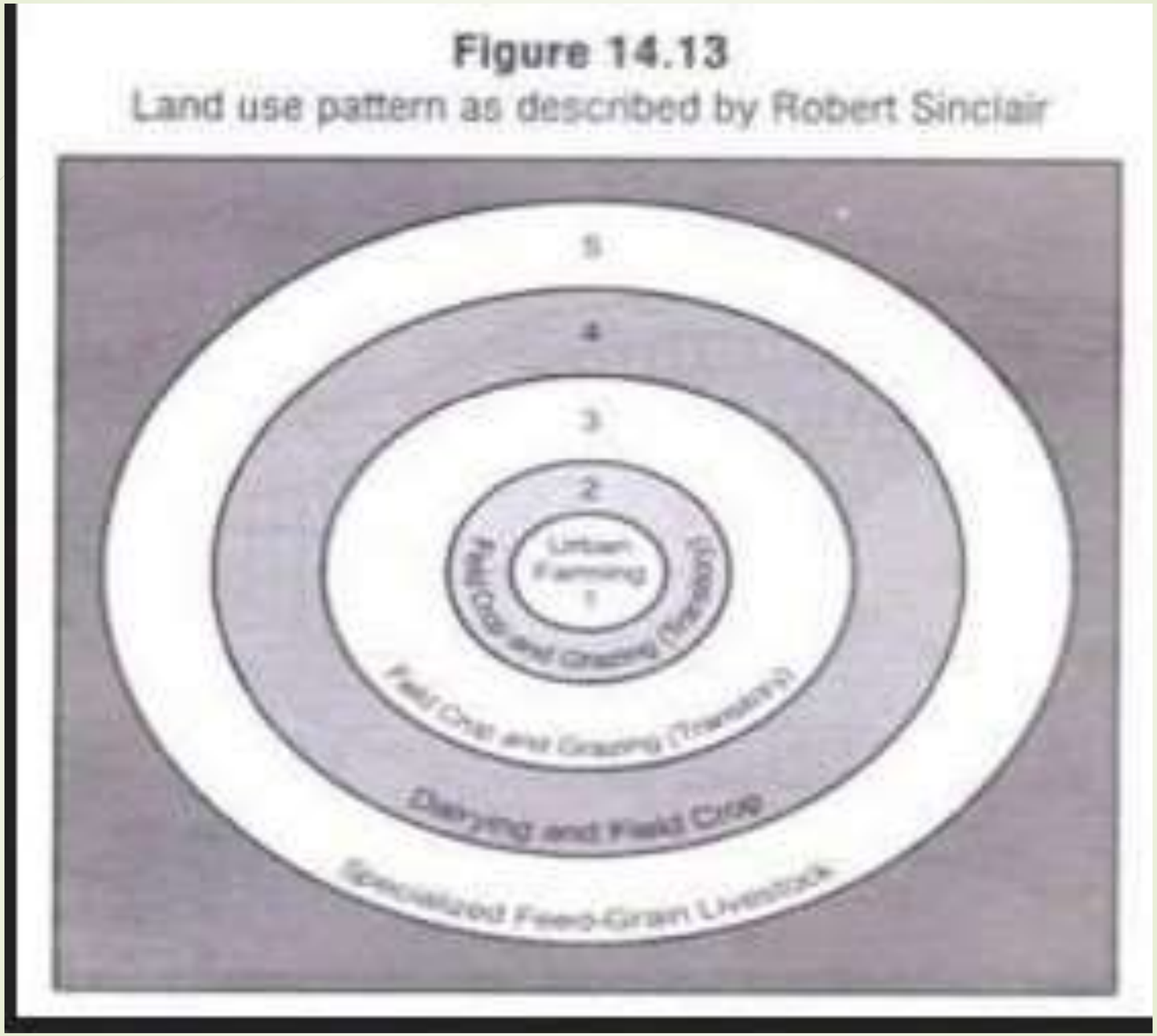
Locational rent and distance from market



Sinclaire Model of Agriculture

Figure 14.13

Land use pattern as described by Robert Sinclair



(i) urban farming, a hodgepodge of small producing units, scattered through the already subdivided outer suburban environment, which favours poultry-keeping, greenhouses, mushroom-raising, and other building-oriented uses;

(ii) (ii) vacant and temporary grazing, where farmers leave much land empty to sell to urban land speculators at the most opportune moment and allow grazing only under short-term leases;

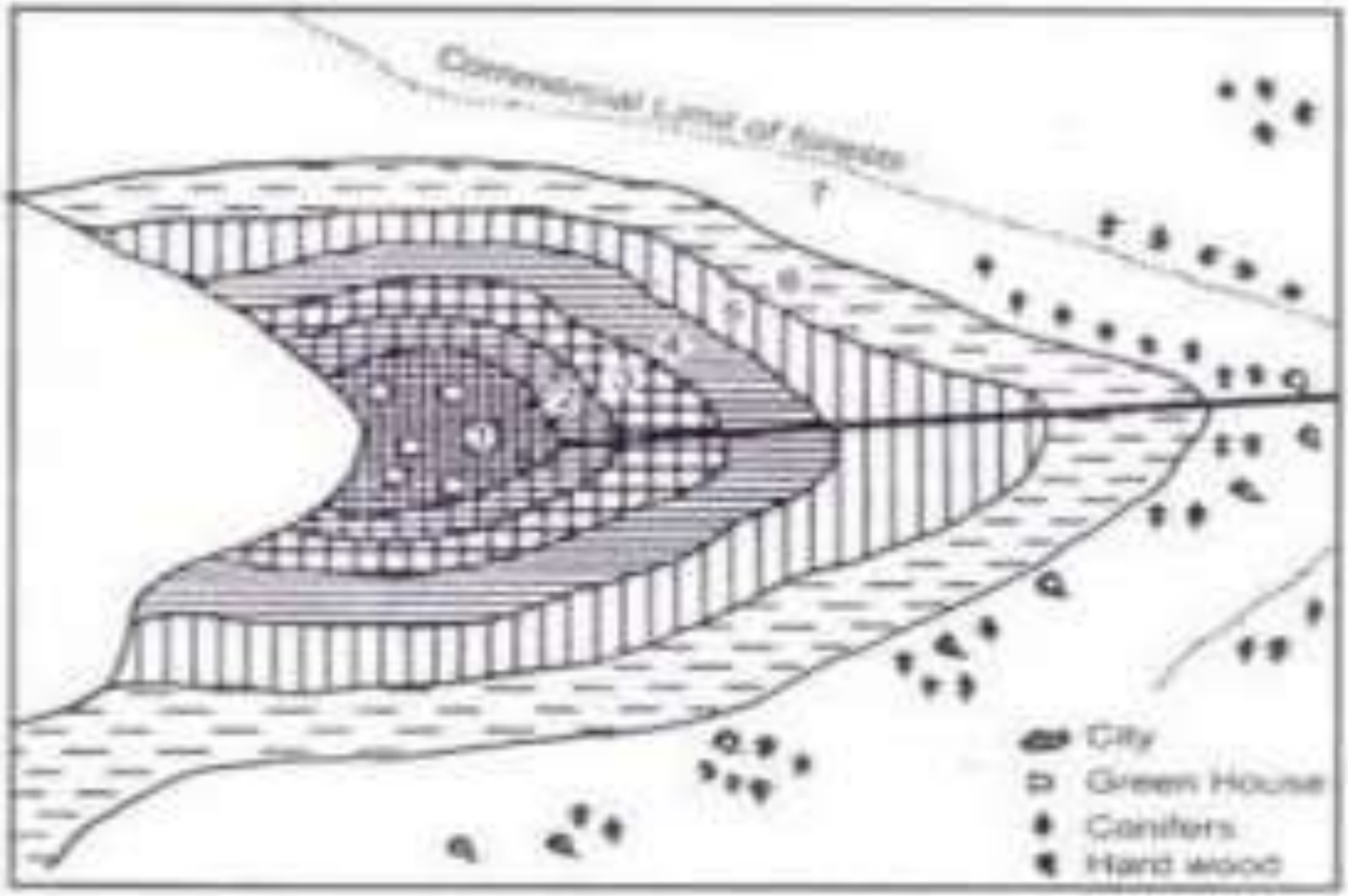
(iii) (iii) transitory field crop and grazing, a transitional agricultural type dominated by farm uses, but with definite anticipation of near - future displacement, expressed by little investment beyond the short term; and

(iv) dairying and field crop farming, wherein farmers begin to shift to more extensive agriculture with a view towards encroachment in the foreseeable future.

Olof Jonasson's Theory

Figure 14.14

Zones of production about a theoretical isolated city in Europe according to Jonasson



Zone 1: The city itself and immediate environs, green house, floriculture.

Zone 2: Truck products, fruits, potatoes and tobacco (and horses).

Zone 3: Dairy products, cattle for beef, sheep for mutton, veal, forage, oats, flax and fibers.

Zone 4: General farming, grain hay, livestock.

Zone 5: Bread cereals and flax for oil.

Zone 6: Cattle (beef and range); horses (range); and sheep (range); salt, smoked, refrigerated, and canned meats; bones; tallow and hides.

Zone 7: The outermost peripheral area, forests.

Input-output models

Theory of optimum physical conditions and limits

Theory of optimum economic conditions and limits.

Spatial equilibrium models

Game theory

Diffusion models

Behavioural Model