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Kondratieff Waves

Economic waves

Harry Dent

Schumpeter

Economic cycles

(Ebeling, 1999:12-13; Preston, 2001:38-39; Alexander, 2002:1-3;

Valenta, 2001; Rodrigue *et al.*, 1997:2-4)

Innovation waves

Hagerstrand

(Hagerstrand, 1967:350-351; Rodrigue *et al.*,

1997:5-6; Haggett, 2003)

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wave

Rodrigue *et al.*, 1997: 4-5;)

(Alexander, 2002: 1; Ebeling , 1999: 11

.(Mayhew, 1997: 1) origin

Hagerstrand

. (Hagerstrand, 1967: 351)

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(Hagerstrand, 1967: 352; Rodrigue *et al.*, 1997: 6)

Rodrigue *et al.*

Ebeling

Market

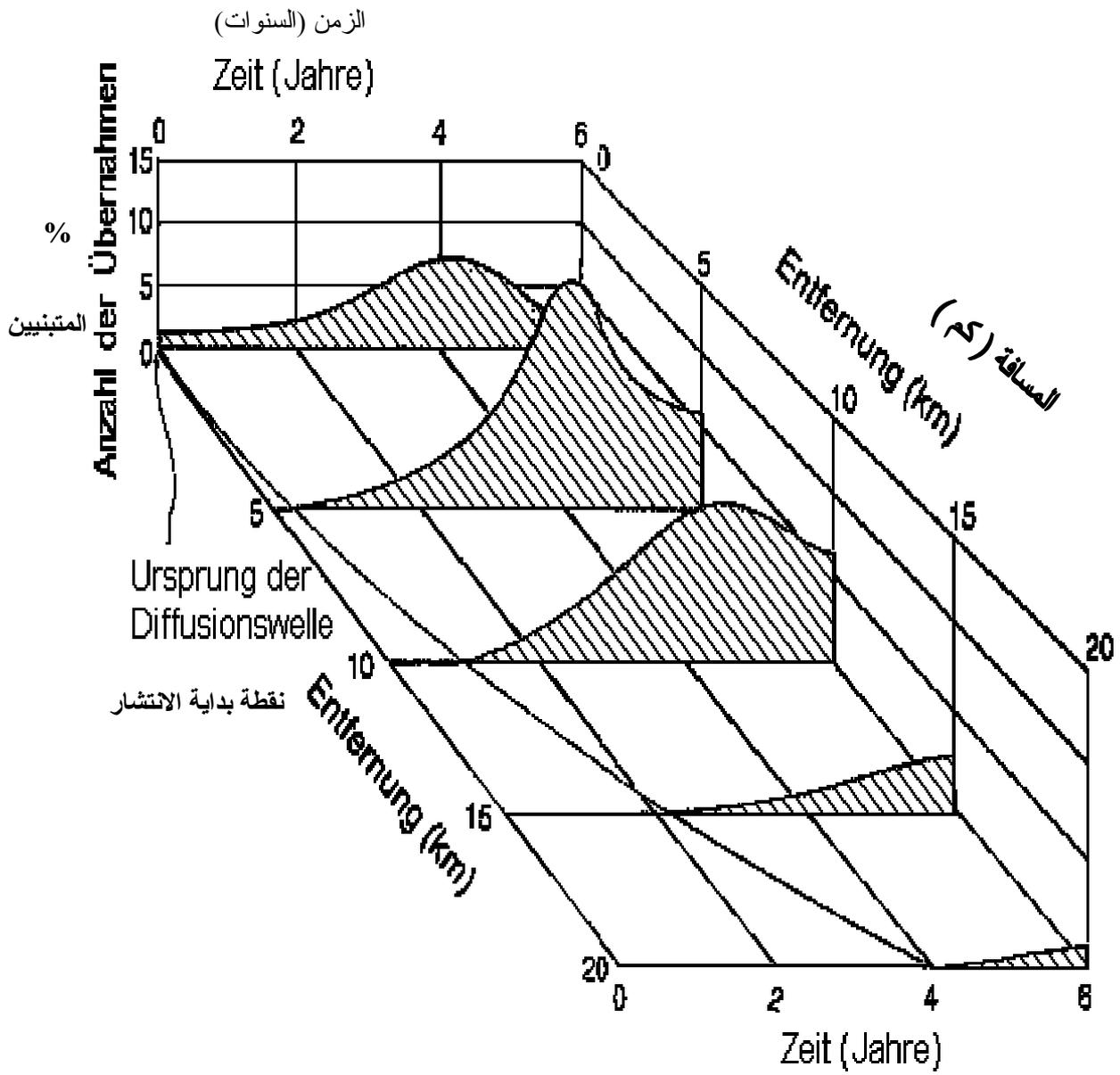
Growth phase

development

Maturity Phase

Decline phase

(Ebeling, 1999: 11; Rodrigue *et al.*, 1997: 4)



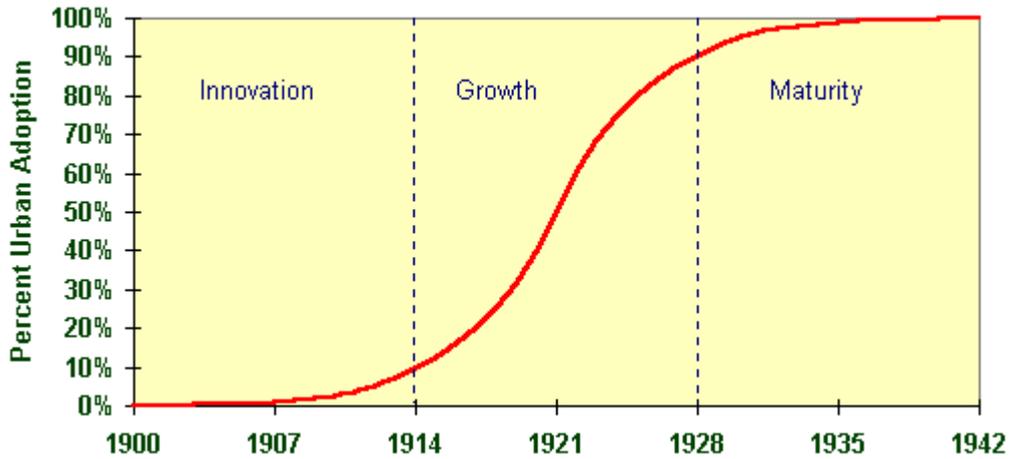
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المصدر: (Hagerstrand, 1967: 352)

() Harry Dent
 Growth phase (% -) Innovation phase
 % %
 % % Maturity phase

Standage, 2000:5; Alexander, 2002: 1,4;)S

(O'Loughlin, n.d.: 8



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(Alexander, 2002):

Diffusion wave Innovation wave

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: Primary stage

: diffusion stage

Condensing stage ()

Saturation stage

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.(Mayhew, 1997: 1; Haggett, 2003; : Hagerstrand, 1967: 350-352

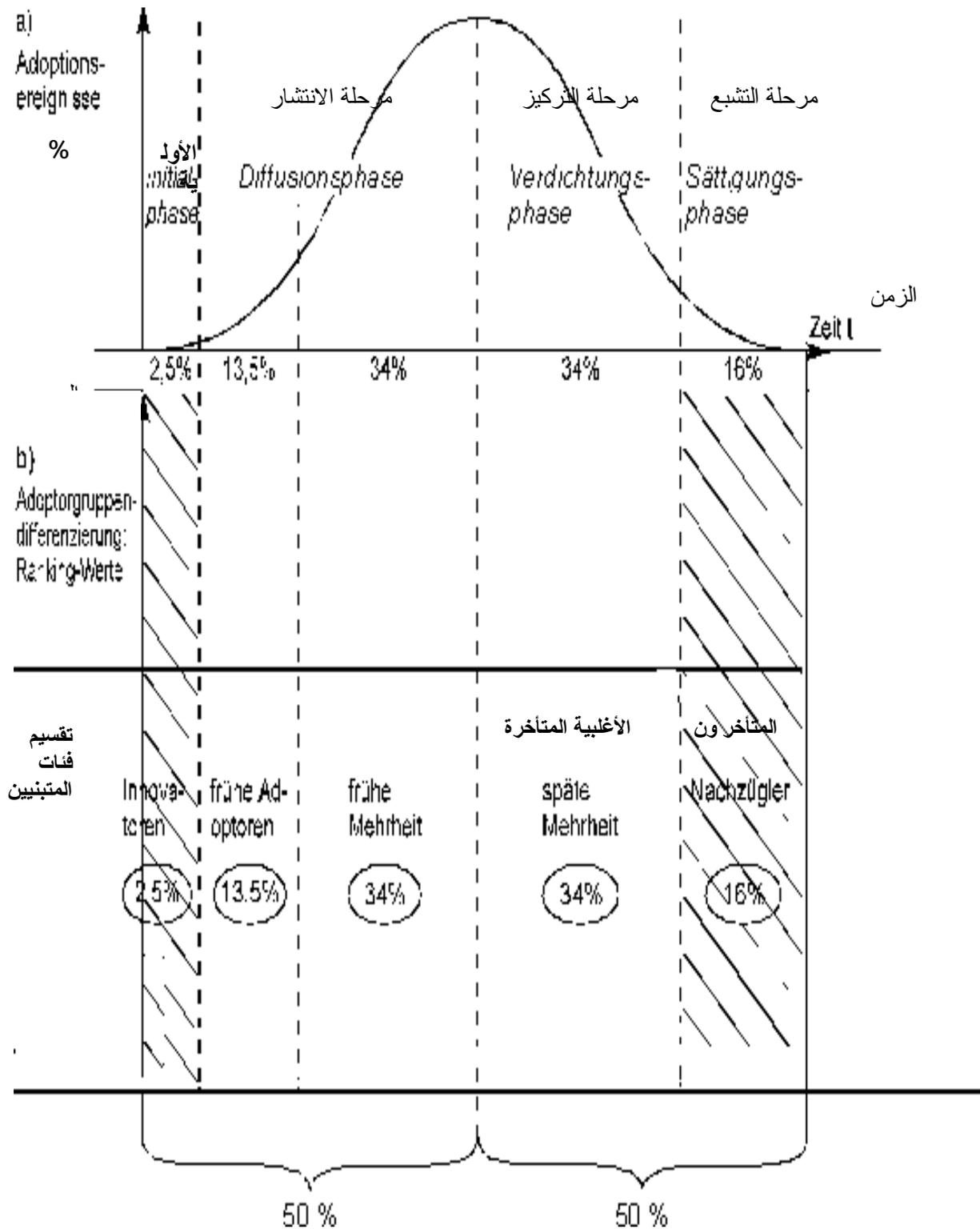
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.(Seidl, 1998) %

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المصدر : (Seidl, 1998)

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EXCEL

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The 4th Scientific Conference of Agricultural Sciences, Assiut, December, 2004

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Abdel-Maksoud & Hend Hosny

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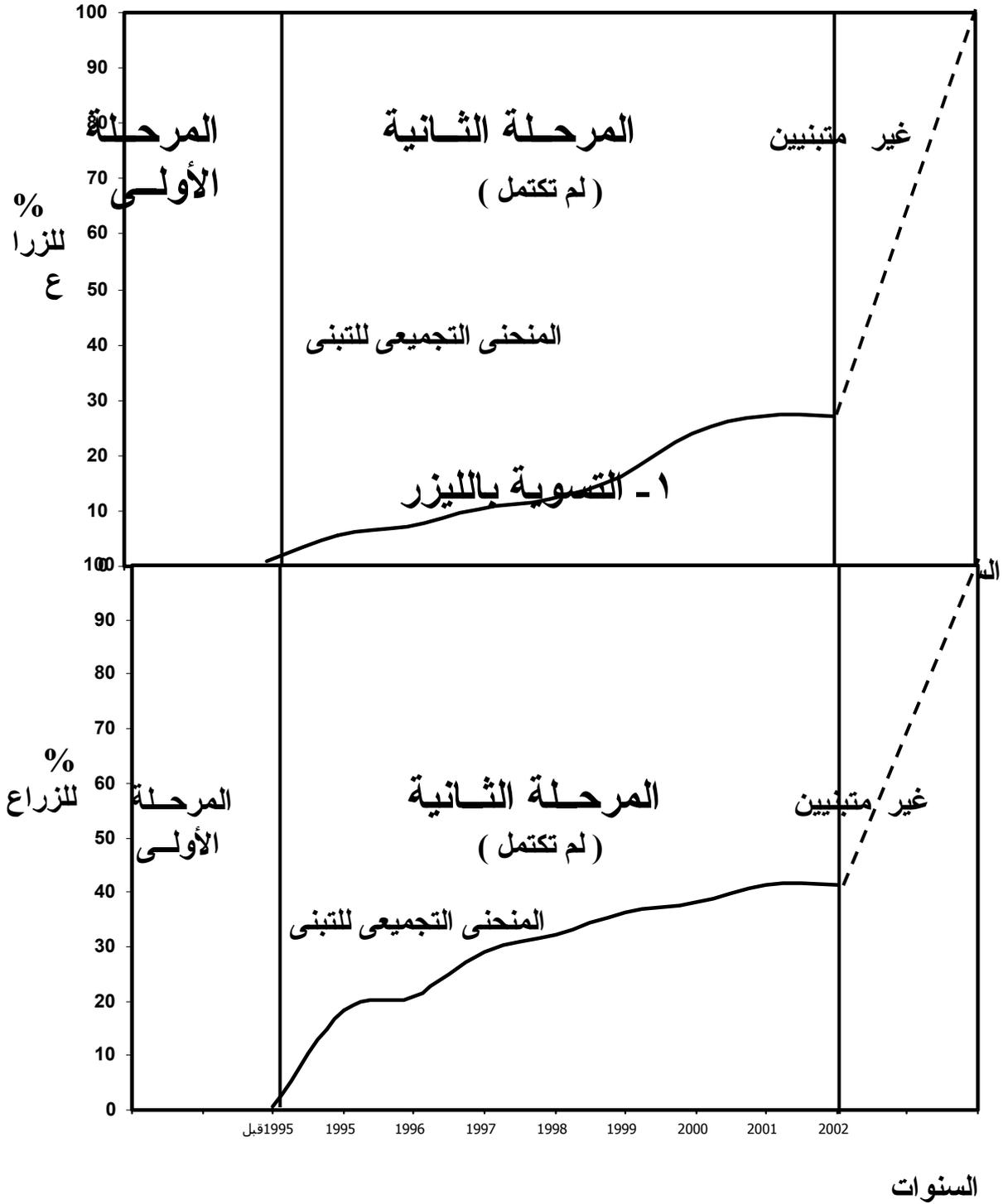
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شكل (٤) موجات بعض المستحدثات الزراعية التي تضمنها مشروع التحديث الزراعي و مراحلها

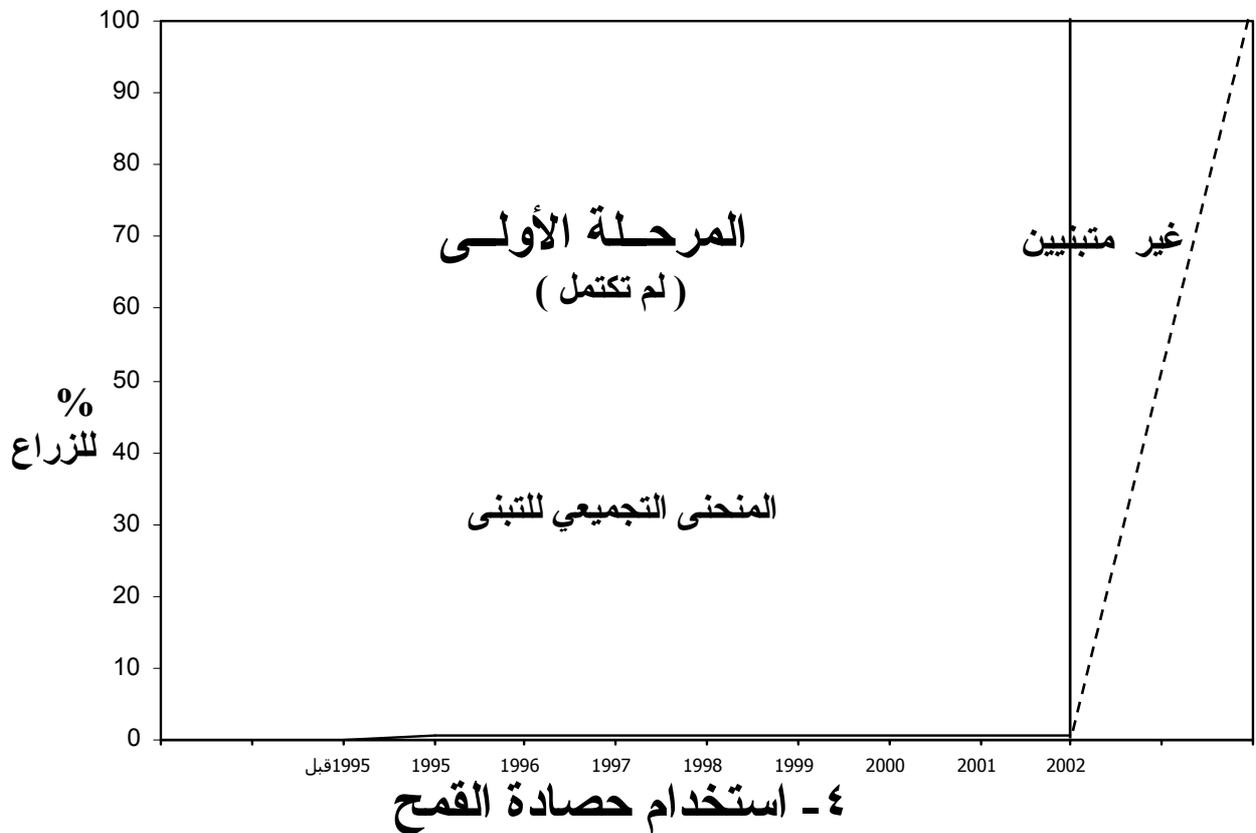


٢- زراعة القمح بالسطارة

تابع شكل (٤)

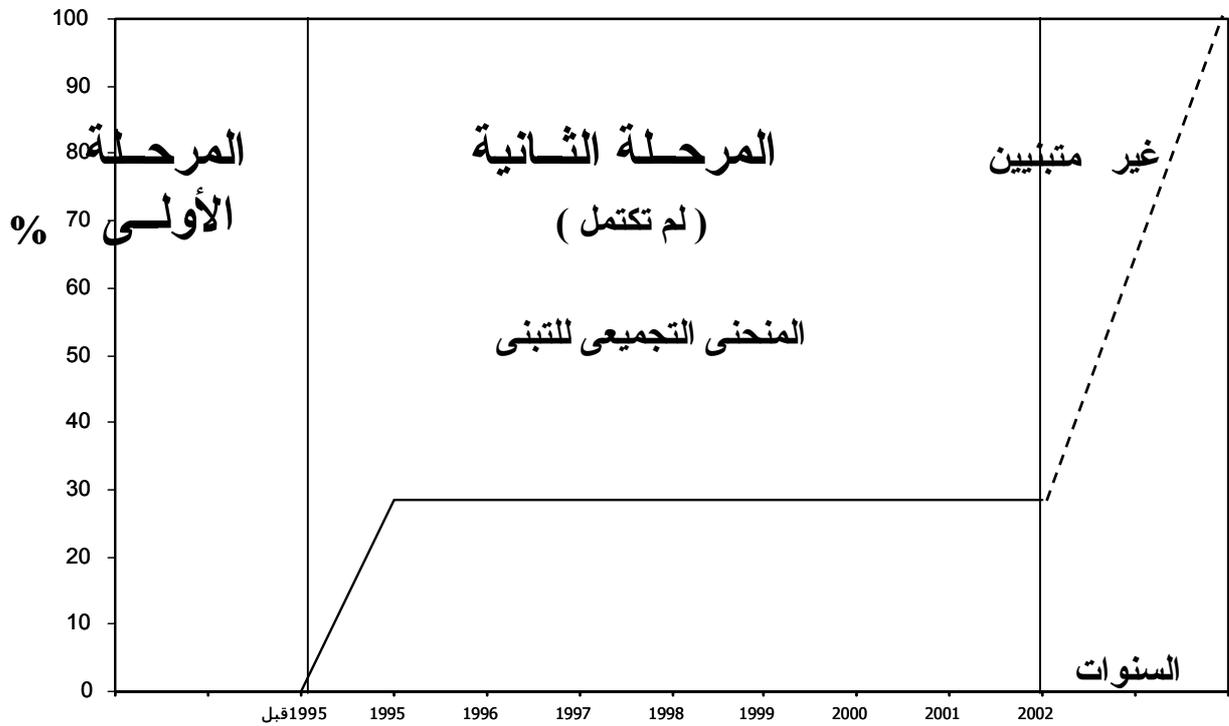


٣- استخدام بدائل المبيدات لمقاومة آفات القمح

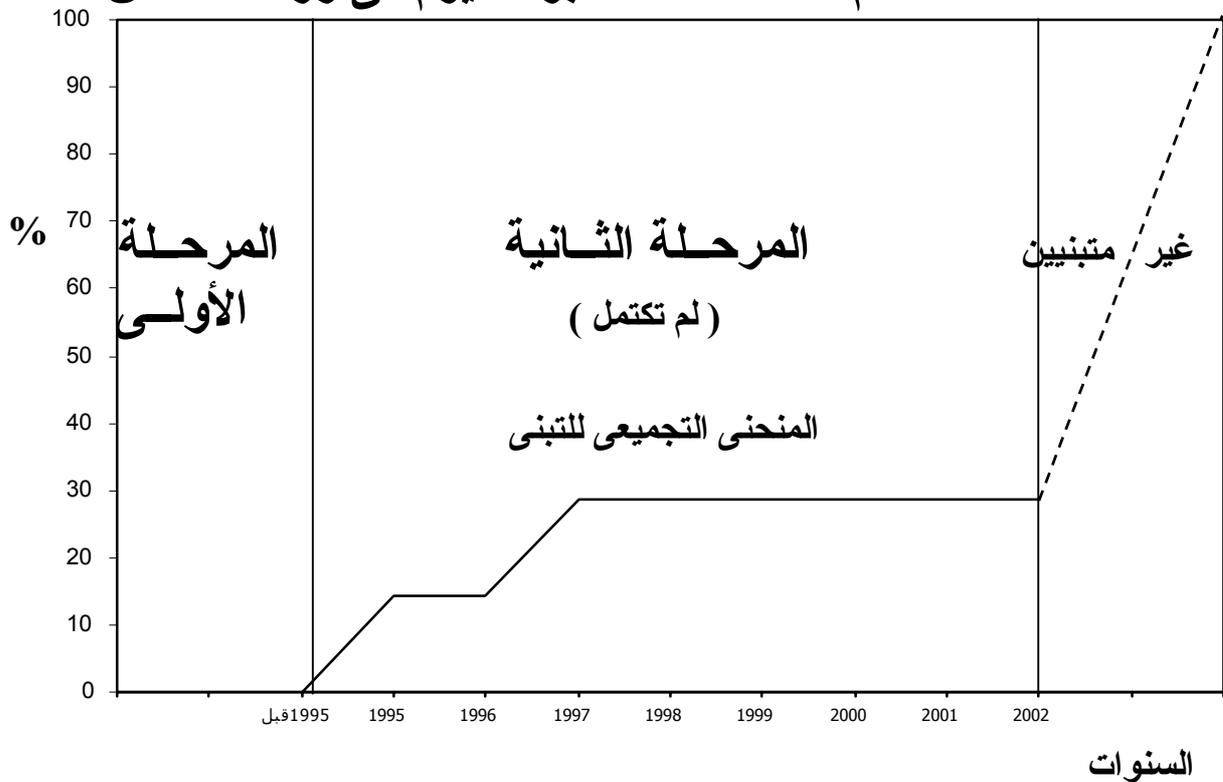


٤- استخدام حصادة القمح

تابع شكل (٤)

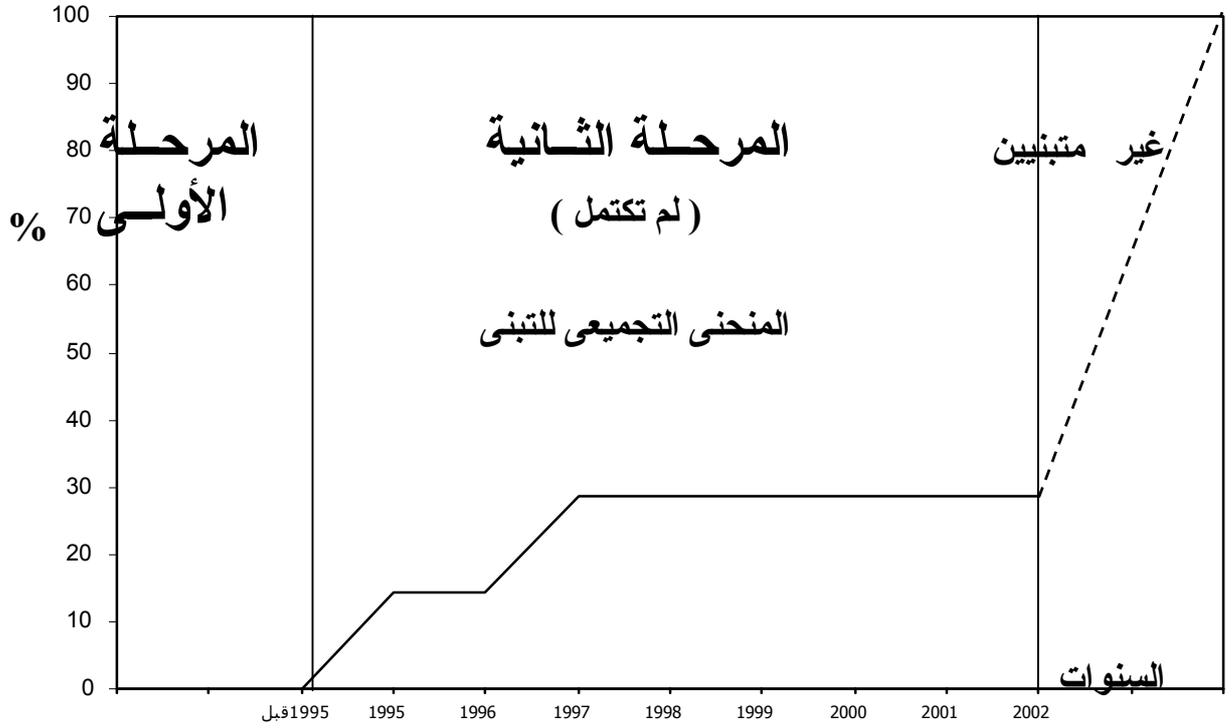


٥- استخدام سماد سلفات البوتاسيوم في زراعة القطن

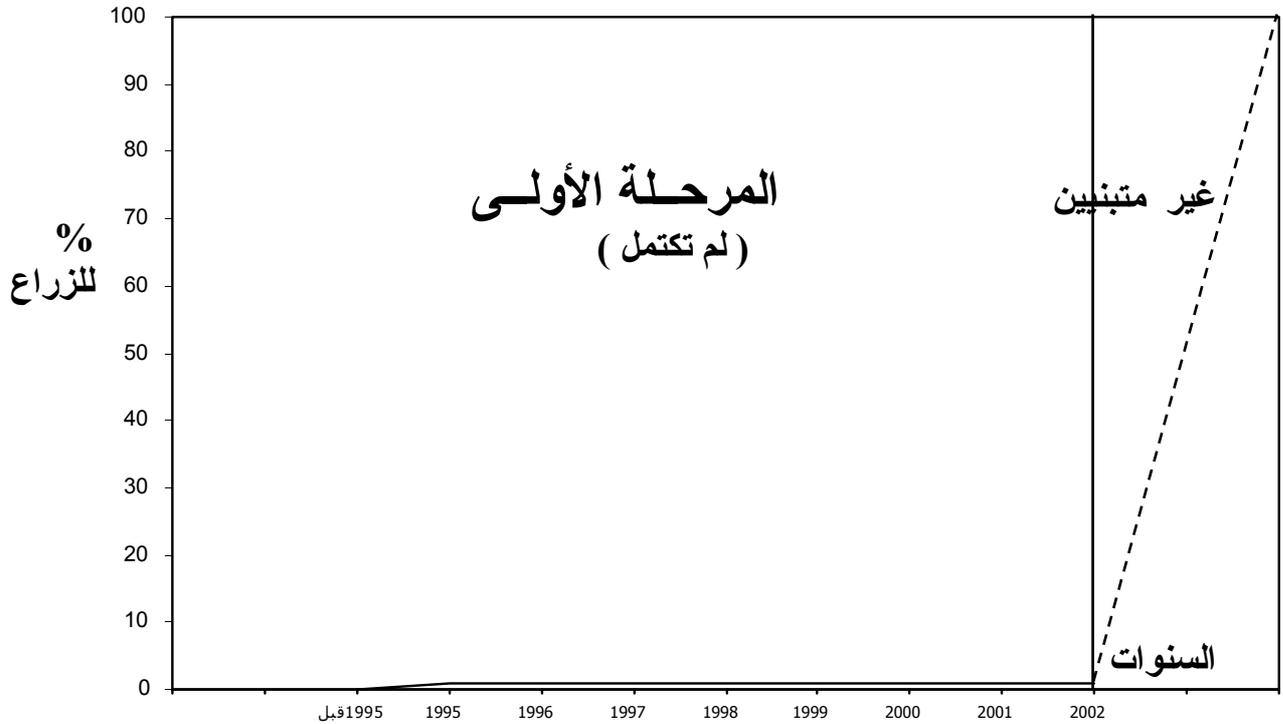


٦- استخدام بدائل المبيدات لمقاومة آفات القطن

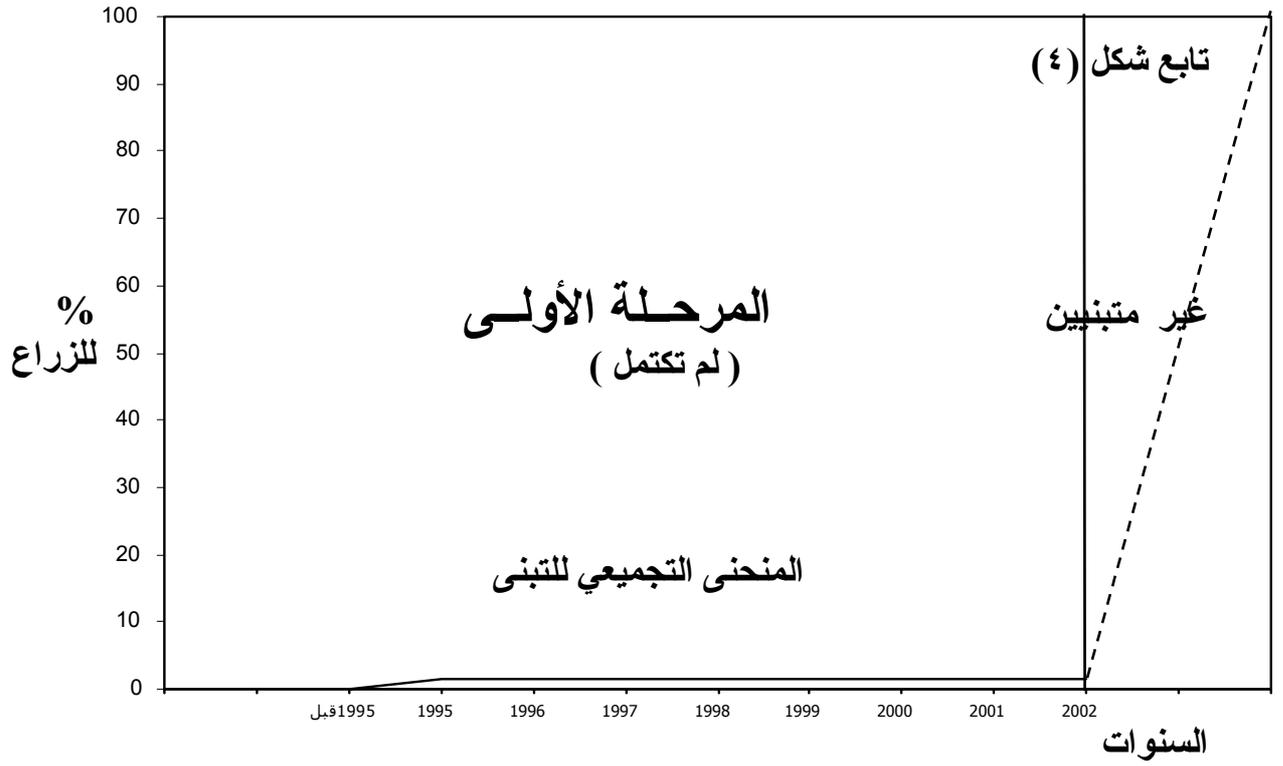
تابع شكل (٤)



٧- الجنى المحسن للقطن



٨- زراعة الذرة الرفيعة على خطوط



٩- استخدام سماد سلفات البوتاسيوم في زراعة الذرة الرفيعة



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Waves of some Agricultural Innovations in Al Awamer Village, Abnub District, Assiut Governorate

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Department of Rural Sociology & Agric. Extension, Faculty of Agriculture, Univ. of Assiut

Abstract

This research aims to:

- (1) Determine waves of some agricultural innovations included in the agricultural modernization project in the research area.
- (2) Know the characteristics of these waves and determine their stages.
- (3) Know reasons of slow diffusion of some innovation waves.

The research used several kinds of data obtained from different sources in addition to a survey carried out on all farmers of Alawamer Village, Abnub District, Assiut Governorate. The data was collected by means of personal interview from 290 farmers using a questionnaire form prepared for this purpose. Frequencies, percentages and cumulative adoption rates were used for data presentation, analysis and determination of innovation waves. Several computer programmes such as SPSS, EXCEL, and WORD were used for data processing and analysis.

The results of this research showed that only nine innovations were known by most farmers in the village. The cumulated adoption rates of these nine innovations ranged from 0.7% to 41%. The waves of these nine innovations were slow or very slow. Five of them were still in their second stage; and the other four were in their first stage. Small farm size and the difficulty of using farm machinery, high cost of the innovation and its no availability were the most important reasons for the slow diffusion of their innovation waves.