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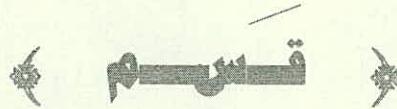
التوثيق الالكتروني والميكروفيلم



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# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
على هذه الأفلام قد اعدت دون أية تغيرات



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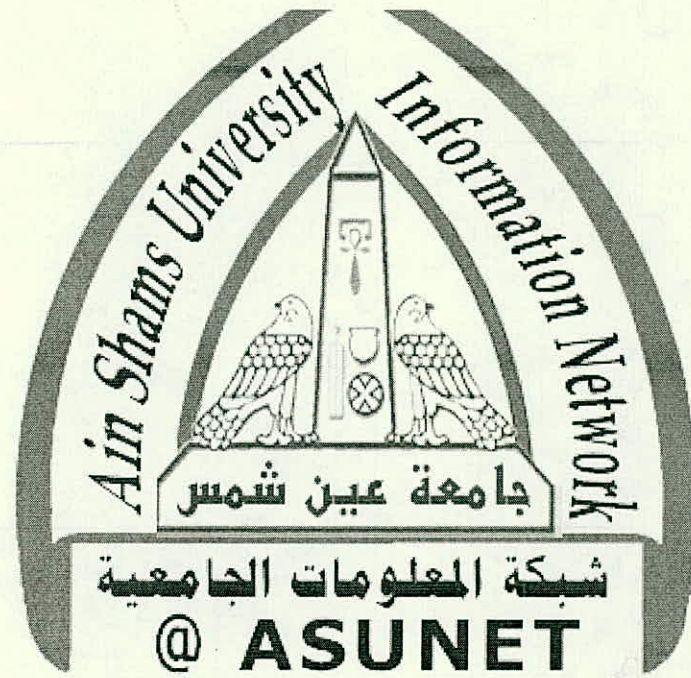
تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of  
15 – 25c and relative humidity 20-40 %



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بعض الوثائق

الأصلية تالفة



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بالرسالة صفحات  
لم ترد بالأصل

**STUDIES ON PINK BOLLWORM *PECTINOPHORA*  
*GOSSYPIELLA* (SAUND.) AND SPINY BOLLWORM  
*EARIAS INSULANA* (BOISD.) IN COTTON FIELDS,  
SHARKIA GOVERNORATE**

**BY**

**ALY AHMED AHMED EL -SAYED**

**A thesis submitted in partial fulfillment**

**of**

**The requirements for the degree of**

**Master of Science**

**In**

**Agriculture**

**(Economic Entomology)**

**Department of Plant Protection**

**Faculty of Agriculture**

**Zagazig University.**

**2001**

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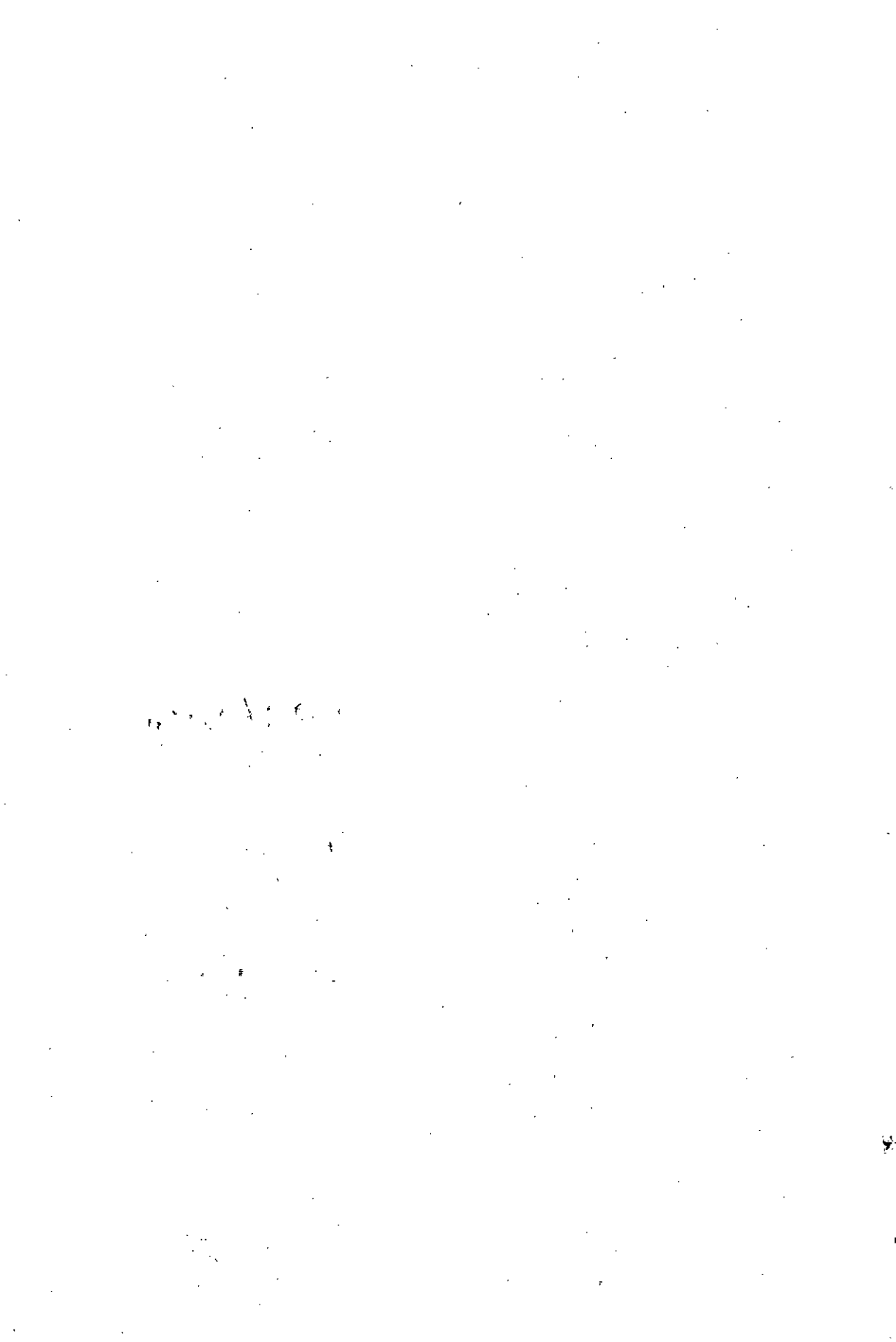
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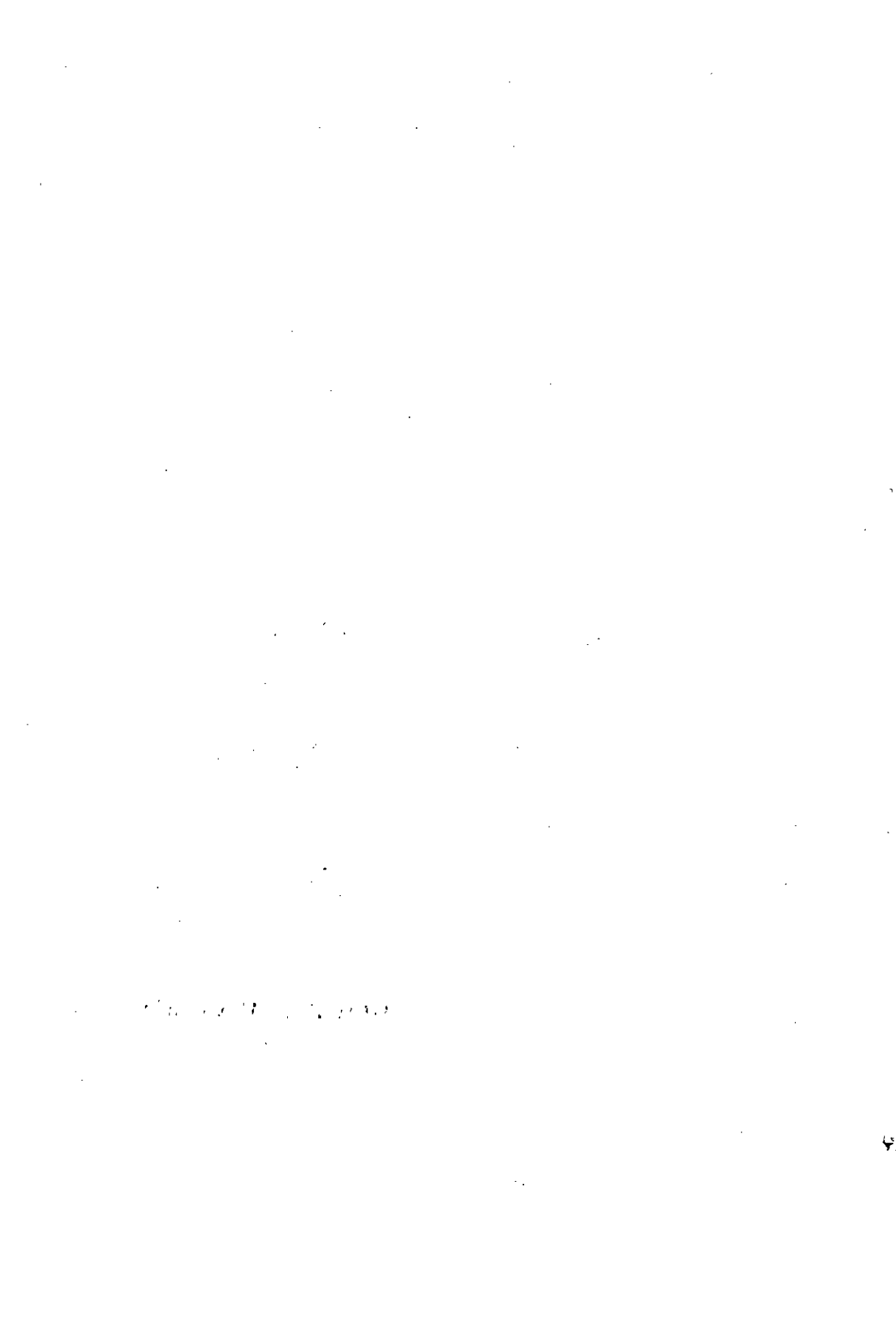
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## ABSTRACT

The present work was carried out on cotton plants, which were grown for the first time in newly reclaimed area of El-Khattara district, Sharkia Governorate during two successive seasons 1996 and 1997 to investigate under field conditions the seasonal fluctuation of both spiny and pink bollworms in cotton plants and also to determine the effects of both fertilizers (macro and microelements) and NeemAzal formulations on flower buds and green bolls infestation. Laboratory experiments were carried out to study the effect of two NeemAzal formulations on some biological aspects of spiny and pink bollworms. The obtained data revealed that there were two activity periods for spiny bollworm moths during season 1996, the first period was extended from the beginning of May until the third week of June, while the second one was extended from the third week of July until the second week of October. The highest peaks were recorded during the two successive seasons were in the 4<sup>th</sup> week of August 1996 (760 moths \ trap \ week) and in the 2<sup>nd</sup> week of September, 1997 (740 moths \ trap \ week). Generally, the second activity period was the highest compared with the first one. The spiny bollworm moths recorded 6 generations a year.

Pink bollworm had one long activity period during the first season, 1996 extended from the 3<sup>rd</sup> week of August until the 1<sup>st</sup> week of November, with highest peak at the 2<sup>nd</sup> week of September (46 moths \ trap \ week). During the second season,

1997 two activity periods were recorded with highest peak at the first week of September (177 moths \ trap \ week). The captured moths of pink bollworm had two and three estimated generations during 1996 and 1997 seasons, respectively. Fertilizers treatments (macro and micro) and NeemAzal-formulation caused significant reduction in both infested cotton flower buds and green bolls accompanied with slightly increasing in yield. NeemAzal-T/S was more effective than that by NeemAzal-T. In the laboratory, the two NeemAzal formulations had highly effect on different biological aspects of both bollworms.

## ACKNOWLEDGMENT

### **Firstly, ultimate thanks to God.**

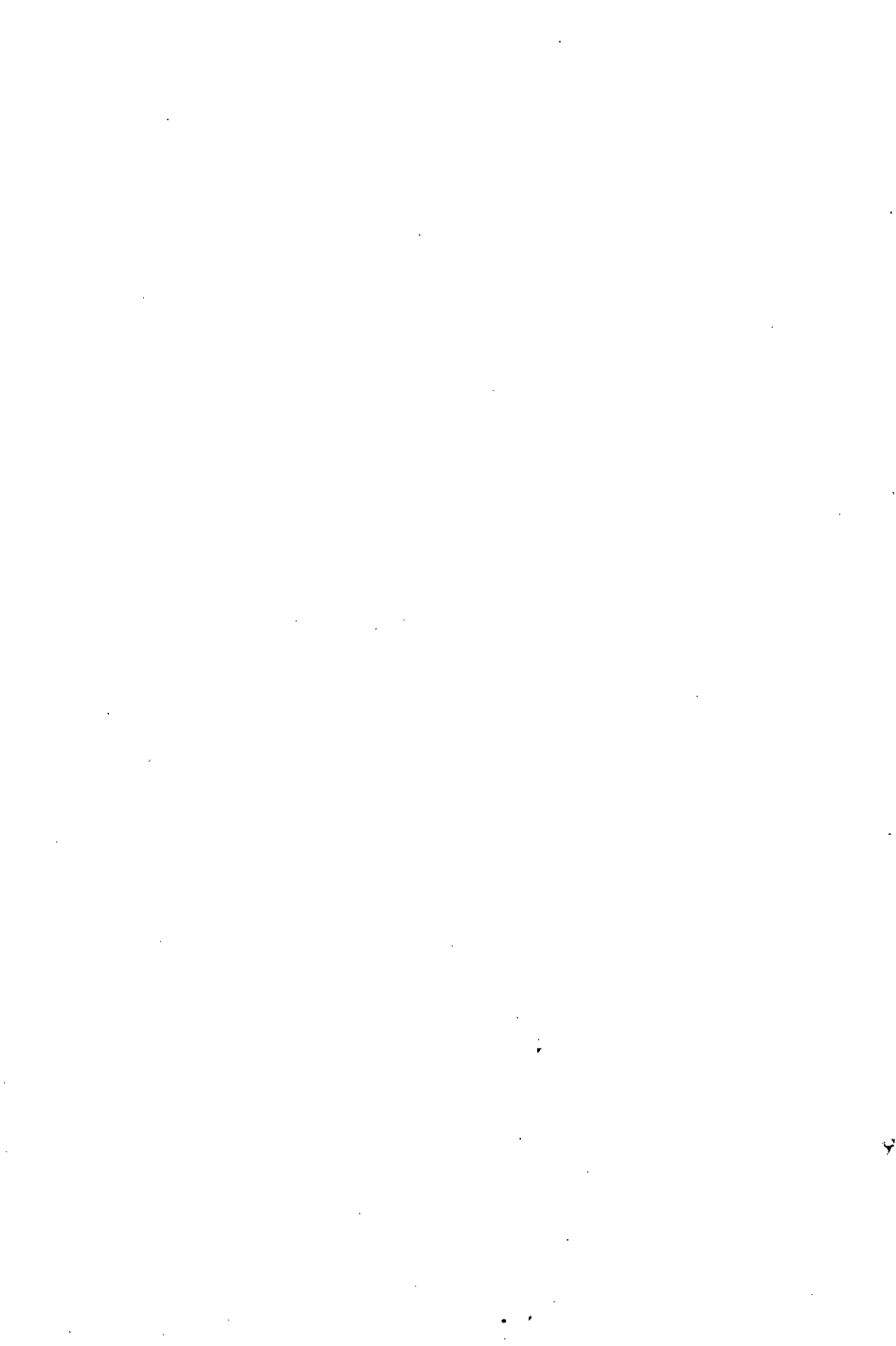
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