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ABSTRACT

HACCP system is an international system for food safety. Balady bread is the major component of different meals in Egypt for wide sectors of Egyptian people, and bakery goods with unbaked cream filling (gateaux) are particularly sensitive for infectious pathogen. So, the present work was carried out to investigate the possibility of implementation of HACCP system in the different Balady bread lines and gateaux line to improve the quality and hence the safety and hygiene of Balady loaf and gateaux.

The obtained results showed that there were different biological, chemical , and physical hazards in the most raw materials used in production of Balady bread and gateaux in addition to contamination from equipments, surrounding air and the lack of adequate personal hygiene practice. Also, results cleared that baking process represented a critical control point from microbiological standpoint as an effect of time and temperature. Proofing step was a critical control point in the production of Balady bread (80% wheat flour and 20% corn flour) which led to the decomposition of aflatoxins.

The study recommends food manufacturer (bakers) to give an increased attention to processing steps of Balady bread in order to produce high quality products with a high degree of safety.

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تاريخ منح الدرجة.....

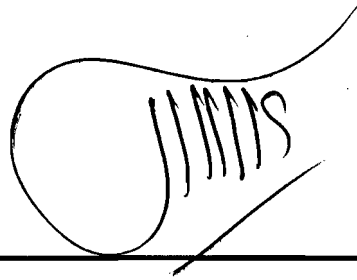
الملخص العربى

يعتبر نظام تحليل مصادر الخطر ونقاط التحكم الحرجة (HACCP) نظاماً عالمياً لسلامة وأمان الغذاء، وتهدف هذه الدراسة إلى محاولة تطبيق هذا النظام داخل خطوط إنتاج بعض منتجات المخابز مثل الخبز البلدى والذي يعتبر المكون الرئيسى للعديد من الوجبات لقطاع عريض من المصريين، وكذلك داخل خطوط إنتاج منتجات المخابز المحشوة والمغطاة بالكريمة (الجاتوه) والتي تعتبر منتجات حساسة للكائنات الدقيقة الممرضة بغرض تحسين جودتها ودرجة الأمان الصحى لها.

وقد أوضحت هذه الدراسة وجود مخاطر بيولوجية ، كيميائية ، وفيزيائية متباينة فى أغلب المواد الخام المستخدمة فى إنتاج كلاً من الخبز البلدى والجاتوه بالإضافة إلى التلوث الحادث من الادوات والهواء المحيط وعدم اتباع العمال للشروط الصحية الواجب إتباعها.

كما أظهرت النتائج أيضاً أن عملية الخبز مثلت نقطة تحكم حرجة من الناحية الميكروبيولوجية تبعاً لتأثير عاملى الوقت ودرجة الحرارة. كما مثلت عملية التخمير نقطة تحكم حرجة من وجهة النظر الكيميائية فى خط الخبز البلدى المصنوع من ٨٠% دقيق قمح + ٢٠% دقيق ذرة نتيجة لحدوث تكسير لجميع الافلاتوكسين.

ومن ذلك فقد أوصت الدراسة المهتمون بتصنيع الغذاء (الخبازون) باعطاء الاهتمام الأكبر لخطوات تصنيع الخبز البلدى والجاتوه حتى الوصول بالمنتج النهائى فى صورة آمنه.



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