Emro Science and Education
International open-access scientific journal
Journal homepage: https://journal.emro.uz

OPEN ACCESS

CONFERENCE PAPER OPEN ACCESS

Vol. 1 No. 1 (2023) · "Axborot oqimlari va intellektual tizimlarning ijtimoiy, iqtisodiy va texnik-texnol... DOI: 10.5281/zenodo.24318983

materiallar to'plami

MAKARON MAHSULOTLARINING SINFLANISHI

Olimov Bobir Komiljon o'g'li, Andijon mashinasozlik instituti "MICHA" kafedrasi assistenti
Tursunov Ibroximjon Shermuxammad o'g'li, Andijon mashinasozlik instituti TJICHAB yo'nalishi, 4-kurs talabasi

Makaron mahsulotlari bug'doy uni vasuvdan tayyorlangan xamirdan shakl berib tayyorlangan mahsulotni 13% va undan past namlikkacha quritib tayyorlangan oziq-ovqat mahsulotlari hisoblanadi. Amaldagi standartlarga ko'ra, makaron mahsulotlari suv va unni aralashtirib, turli usullarda shakl berib va quritib tayyorlangan oziq - ovqat mahsulotlari hisoblanadi. Bundan makaron mahsulotlari donli va boshqa o'simliklardan, ularni qayta ishlash mahsulotlaridan, qo'shimcha xomashyolar qo'shib yoki qo'shmasdan tayyorlanishi mumkin [1].

Makaron mahsulotlarining quyidagi turlari mavjud: qo'shimcha xomashyolar qo'shmasdan tayyorlangan - tabiiy; bug'doy uni va suvdan tuxum mahsulotlari qo'shib yoki qo'shmasdan tayyorlangan - an'anaviy; 14 yoshgacha bo'lgan bolalar ovqatlanishi uchun mo'ljallangan makaron mahsulotlari; qaynatishni talab qilmaydigan - tez tayyor bo'ladigan; davolovchi va parhezbop ovqatlanishga mo'ljallangan- diyetik.

Makaron mahsulotlari namligining pastligi, mexanik mustahkamligining yuqoriligi, tarkibida tez buzuluvchi, gigroskopikligi yuqori bo'lgan qo'shimchalar va moddalarning yo'qligi, bir yildan ortiq muddatda ta'm va oziqaviy xossalarini o'zgartirmasdan saqlanishi sababli ularni "xamir konservalari" deb atash mumkin [2].

Makaron mahsulotlarining oziq-ovqat sifatidagi asosiy afzalliklari quyidagilar:
- xossalarini o'zgartirmasdan uzoq vaqt (bir yildan ortiq) saqlanishi: makaron mahsulotlari qattiqligi o'zgarmaydi, donli quruq nonushtalarga nisbatan gigroskopikligi past, tashishga qulay;
-iste'mol qilish uchun tayyorlash usuli tez va oson (assortimentiga qarab qaynatish davomiyligi 3 daqiqadan 20 daqiqagacha);
- qaynatish suvi bilan yo'qotishlarning kamligi. Makaron mahsulotlari suv yutish qobiliyati yuqori (massasiga nisbatan 2,5 martagacha ko'proq suvniyutadi) va quruq moddalarning 4 - 7 % -igina qaynatish suviga o'tadi;
- oziqaviy qiymati nisbatan yuqori: 100 g quruq makaronlar qo'shib tayyorlangan taom insonning oqsillarga va uglevodlarga bo'lgan sutkalik ehtiyojini 10-15% ga qoplaydi;
- makaron mahsulotlaridagi asosiy oziqa moddalari - oqsillar va uglevodlarning hazm bo'lishining yuqoriligi (98% gacha) [3].

Qo'shimcha xomashyolar qo'shib tayyorlangan makaron mahsulotlari guruhi va navlarini belgilashda nomiga qo'shilgan qo'shimcha nomi qo'shib aytiladi: masalan, A guruhidagi, oliy navli, tuxumli. Shakl berish usuliga qarab makaron mahsulotlari kesilgan (xamir tasmasini kesib shakl berilgan), presslangan (makaron presslari yordamida shakl berilgan) va shtamplangan (xamir tasmasini shtamplab shakl berilgan) turlarga bo'linadi. Shakliga qarab makaron mahsulotlari quyidagi xillarga bo'linadi: naysimon, ipsimon, tasmali va shakldor. Naysimon makaron mahsulotlari o'z navbatida (makaron mahsulotlarining shakli va kesim yuzasining tavsifiga ko'ra)

Published: 10.11.2023

Cite this article: Olimov Bobir Komiljon o'g'li, Tursunov Ibroximjon Shermuxammad o'g'li (2023). Makaron mahsulotlarining sinflanishi. Emro Science and Education, 1(1). https://doi.org/10.5281/zenodo.24318983

© 2023 The Author(s). Published by Emro Science and Education. This is an open access article.

quyidagi xilma - xilliklarga bo‘linadi: makaronlar, shoxchalar, perolar; ko‘ndalang kesimi o‘lchamlari bo‘yicha (makaron mahsulotlarining kesim yuzasining o‘lchamlariga ko‘ra tavsifi): 4,0 mm gacha - somoncha, 4,1 -7,0 mm gacha - oddiy, 7,1 mm va undan ortiq – havaskorlik mahsulotlari; devorlari qalinligi 2,0 mm gacha bo‘lgan - naysimon makaron mahsulotlari. Ipsimon makaron mahsulotlari, vermishel xili ko‘ndalang kesim o‘lchamlariga ko‘ra quyidagi xillarga bo‘linadi: 0,8 mm gacha - o‘rgimchak ipi, 0,9 - 1,5 mm gacha - oddiy,1,6 - 3,5 mm gacha havaskorlik mahsulotlari. Tasmasimon makaron mahsulotlari, lapsha xili kengligiga ko‘raquyidagi turlarga bo‘linadi: 7,0 mm gacha - ingichka, 7,1 - 25,0 mm gacha - keng. Lapshalarning qalinligi 2,0 mm gacha. Shakldor makaron mahsulotlari (murakkab konfiguratsiyadagi tekis yoki hajmli mahsulotlar) presslangan (silliq va hajmli) va shtamplangan (silliq va hajmli) turlarga bo‘linadi. Qadoqlash birligidagi bir jinsligini ta’minlash hisobiga shakldor makaron mahsulotlarning turli shakllarda bo‘lishiga ruxsat etiladi. Barcha turdagi makaron mahsulotlari uzun (200 mm dan kam bo‘lmagan) va kalta (150 mm dan ko‘p bo‘lmagan) turlarga bo‘linadi. Uzun mahsulotlar bittadan yoki ikkitadan bukilgan hamda kalavalar, bantiklar, uyachalar shaklida bo‘lishi mumkin. Qo‘shaloq bukilgan mahsulotlar - bastunlarda, ya’ni quritish uchun maxsus moslamalarda osilgan holda quritilgan mahsulotlar hisoblanadi [4].

Foydalanilgan adabiyotlar ro‘yxati

1. Медведев, П. В. Системный подход к формированию качества макаронных изделий / П. В. Медведев, В. А. Федотов, И. А. Бочкарева // Хлебопродукты. - 2016. - № 8. - С. 61 - 73.
2. Равшанов С.С., Мусаев Х.П. «Макарон маҳсулотлари технологияси» фанидан амалий ишларини бажариш учун услубий қўрсатма. ТКТИ босмахонаси ризографияси. Тошкент, 2018 й., -62 бет.
3. Тарасенко, С. С. Оптимизация процесса подготовки твердой пшеницы к макаронному помолу / С. С. Тарасенко // Вестник Оренбургского государственного университета. - №1 (176), январь 2015. - С. 234-237.
4. Черных, В. Я. Определение цветовых характеристик пшеничной муки при производстве хлебобулочных и макаронных изделий / В.Я. Черных и др. // Хлебопродукты, 2017. - №2. - С. 44-56.
5. Pakhritdinovich, M. J., & Xasanovich, S. E. (2022). Research of a combined energy-saving drum dryer for drying sunflower seeds. *Harvard Educational and Scientific Review*, *2*(1).
   URL: https://journals.company/index.php/hesr/article/view/25
6. O Bobir, S Asadbek. Automation Of the Fruit Drying Process. Eurasian Journal of Engineering and Technology, 2023.
   URL: https://www.geniusjournals.org/index.php/ejet/article/view/4250

materiallar to‘plami

STEPPING UP THE FIGHT AGAINST CORROSION: PREVENTING CORROSION OF STEPPED SHAFTS

XAYITBOYEV QUDRATBEK ANVARBEK O‘G‘LI, ANDIJAN MACHINE-BUILDING INSTITUTE
ASSISTANT OF THE DEPARTMENT, “AUTOMATION OF MACHINE-BUILDING PRODUCTION”

Annotation: This article explores effective strategies and best practices for preventing the corrosion of stepped shafts, which are commonly found in mechanical systems. The prevention of corrosion in stepped shafts is crucial to ensure optimal performance, reduce maintenance costs, and extend equipment lifespan. The article discusses material selection, protective coatings, cathodic protection, environmental considerations, and regular inspection and maintenance as key preventive measures. By implementing these strategies, the negative impact of corrosion can be minimized, preserving the integrity of stepped shafts.

Keywords: Corrosion prevention, Stepped shafts, Material selection, Protective coatings, Cathodic protection, Environmental factors, Regular inspection, Maintenance, Corrosion-resistant alloys, Corrosion inhibitors.

Introduction: Corrosion is a persistent and costly problem that affects numerous industries worldwide. When it comes to stepped shafts, which are commonly found in various mechanical systems, corrosion poses a significant threat to their functionality and longevity. The prevention of corrosion in stepped shafts is of paramount importance to ensure optimal performance, reduce maintenance costs, and extend the lifespan of equipment. In this article, we will explore some effective strategies and best practices for preventing corrosion in stepped shafts.

Corrosion is an electrochemical process that occurs when metal reacts with its environment, leading to the deterioration of the material. Stepped shafts, with their varying diameters and exposed surfaces, are particularly susceptible to corrosion. Corrosion can manifest in several forms, including uniform corrosion, pitting corrosion, crevice corrosion, and stress corrosion cracking. To prevent corrosion, it is crucial to implement a comprehensive corrosion prevention plan. The choice of materials for stepped shafts can significantly impact their susceptibility to corrosion. Opting for materials with high corrosion resistance, such as stainless steel or corrosion-resistant alloys, can provide an excellent foundation for preventing corrosion. These materials offer superior resistance to chemical attack, oxidation, and environmental factors, making them ideal for stepped shaft applications in corrosive environments. Applying protective coatings is a widely adopted strategy for preventing corrosion in stepped shafts. Various coating options, such as paints, polymer coatings, and metal plating, can effectively shield the surface of the shaft from corrosive agents. These coatings act as a barrier, preventing direct contact between the metal and its environment. It is essential to select coatings that are specifically designed for corrosion resistance and can withstand the operating conditions of the shaft.

Cathodic Protection: Cathodic protection is an electrochemical technique used to mitigate corrosion by controlling the electrochemical reactions occurring on the