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ANJIR MEVASINI VAKUUMLI MUZLATIB QURITISHDA ISSIQLIK VA MASSA ALMASHINUVI JARAYONLARINI TADQIQ QILISH

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anjir, vakuumli muzlatib quritish, sublimatsiya, issiqlik almashinuvi, massa almashinuvi, namlik, quritish kinetikasi, vakuum, matematik model.

Annotatsiya. Mazkur tezisda anjir mevasini vakuumli muzlatib quritish jarayonida sodir bo‘ladigan issiqlik va massa almashinuvi jarayonlarining nazariy asoslari ko‘rib chiqilgan. Anjir mevasining yuqori namlikka ega ekanligi uni uzoq muddat saqlashda muayyan texnologik muammolarni yuzaga keltiradi. Ushbu muammolarni bartaraf etishda sublimatsion quritish texnologiyasidan foydalanish istiqbolli hisoblanadi. Tadqiqotda muzlatilgan mahsulot tarkibidagi muzning sublimatsiyalanishi, suv bug‘ining g‘ovak qatlam orqali harakatlanishi, harorat va bosimning quritish tezligiga ta’siri tahlil qilingan. Shuningdek, issiqlik va massa almashinuvi jarayonlarini matematik modellashtirishning asosiy tenglamalari keltirilgan.

Kirish

Oziq-ovqat sanoatida meva va sabzavot mahsulotlarini uzoq muddat saqlash, ularning tabiiy sifat ko‘rsatkichlarini saqlab qolish hamda qayta ishlash samaradorligini oshirish dolzarb masalalardan biri hisoblanadi. Ayniqsa, tarkibida namlik miqdori yuqori bo‘lgan mevalarni saqlashda turli quritish texnologiyalaridan foydalanish muhim ahamiyat kasb etadi.

Anjir (Ficus carica L.) tarkibida uglevodlar, mineral moddalar, oziq tolalari va biologik faol birikmalar mavjud bo‘lgan qimmatli meva hisoblanadi. Uning yuqori namlikka ega ekanligi saqlash davomida mikrobiologik va biokimyoviy jarayonlarning rivojlanishiga sharoit yaratadi. Shu sababli anjir mevasini samarali quritish texnologiyasini ishlab chiqish muhim ilmiy-amaliy vazifa hisoblanadi.

An’anaviy issiq havo yordamida quritish usulida mahsulot yuqori harorat ta’sirida bo‘ladi. Bu esa ayrim hollarda mahsulot rangining o‘zgarishi, tabiiy hid va ta’m xususiyatlarining pasayishi hamda issiqlikka sezgir biologik faol moddalarning kamayishiga olib kelishi mumkin.

Bunday kamchiliklarni kamaytirish maqsadida vakuumli muzlatib quritish, ya’ni sublimatsion quritish texnologiyasidan foydalanish mumkin. Ushbu texnologiyada mahsulot dastlab muzlatiladi, keyinchalik vakuum sharoitida muz suyuq holatga o‘tmasdan bevosita bug‘ holatiga o‘tadi. Natijada mahsulot tarkibidagi namlik chiqarilib, uning tabiiy g‘ovak tuzilishini saqlash imkoniyati yaratiladi.

Tadqiqotning maqsadi

Tadqiqotning asosiy maqsadi anjir mevasini vakuumli muzlatib quritish jarayonida issiqlik va massa almashinuvi qonuniyatlarini o‘rganish, jarayonga ta’sir etuvchi asosiy texnologik parametrlarni aniqlash hamda mahsulot sifatini saqlagan holda quritish samaradorligini oshirishga qaratilgan ilmiy asoslangan tavsiyalar ishlab chiqishdan iborat.

Ushbu maqsadga erishish uchun quyidagi vazifalar belgilandi:

- anjir mevasining fizik-kimyoviy xususiyatlarini o‘rganish;
- sublimatsion quritish jarayonining fizik mohiyatini tahlil qilish;
- issiqlik uzatilishi va suv bug‘ining harakatlanish mexanizmlarini o‘rganish;
- harorat, bosim va mahsulot qalinligining quritish jarayoniga ta’sirini aniqlash;
- issiqlik va massa almashinuvi jarayonlarini matematik modellashtirish;
- quritishning maqbul texnologik parametrlarini asoslash.

Tadqiqotning nazariy asoslari

Vakuumli muzlatib quritish uchta asosiy bosqichdan iborat: muzlatish, birlamchi sublimatsion quritish va ikkilamchi quritish.

Birinchi bosqichda anjir tarkibidagi erkin suv muzlatiladi. Muzlatish jarayonining tezligi hosil bo‘ladigan muz kristallarining o‘lchami va mahsulotning keyingi g‘ovak tuzilishiga ta’sir ko‘rsatadi.

Ikkinchi bosqichda mahsulot vakuum kamerasiga joylashtiriladi. Kamera bosimi muzning uchlamchi nuqtasidan past sharoitda ushlab turiladi va mahsulotga

kerakli miqdorda issiqlik uzatiladi. Natijada muz kristallari sublimatsiyalanib, suv bug‘iga aylanadi.

Uchinchi bosqichda mahsulot tarkibida qolgan bog‘langan namlik chiqariladi. Ushbu bosqichda harorat va bosim rejimi mahsulotning issiqlikka chidamliligi hisobga olingan holda tanlanadi.

Sublimatsion quritish jarayonida issiqlik almashinuvi asosiy rol o‘ynaydi. Mahsulotga isitish tokchalari orqali uzatilgan issiqlik muzning sublimatsiyalanishi uchun sarflanadi. Issiqlik oqimini soddalashtirilgan holda quyidagi tenglama bilan ifodalash mumkin:

$$q = \lambda \cdot (T_1 - T_2) / \delta$$

Bu yerda q – issiqlik oqimi zichligi, λ – issiqlik o‘tkazuvchanlik koeffitsiyenti, T_1 va T_2 – qatlam chegaralaridagi haroratlar, δ – qatlam qalinligi.

Muzning sublimatsiyalanishi uchun zarur bo‘lgan issiqlik miqdori esa:

$$Q = m \cdot Ls$$

Bu yerda Q – issiqlik miqdori, m – sublimatsiyalangan muz massasi, Ls – muzning sublimatsiya solishtirma issiqligi.

Massa almashinuvi jarayonida sublimatsiya natijasida hosil bo‘lgan suv bug‘i mahsulotning qurigan g‘ovak qatlami orqali vakuum kamerasiga chiqadi. Ushbu jarayonni Fik qonuni asosida quyidagicha ifodalash mumkin:

$$J = -D_e \cdot (\partial C/\partial x)$$

Bu yerda J – massa oqimi zichligi, D_e – samarali diffuziya koeffitsiyenti, C – suv bug‘ining konsentratsiyasi, x – koordinata.

Shuni ta’kidlash kerakki, vakuum sharoitida massa almashinuvi faqat molekulyar diffuziya bilan chegaralanmaydi. G‘ovak muhitdagi bosim gradienti va Knudsen diffuziyasi ham suv bug‘ining harakatlanishiga ta’sir ko‘rsatadi.

Issiqlik va massa almashinuvi jarayonlariga ta’sir etuvchi omillar

Anjir mevasini sublimatsion quritishda bir nechta texnologik parametrlar muhim ahamiyatga ega.

Birinchidan, harorat mahsulotga uzatiladigan issiqlik miqdorini belgilaydi. Haroratning oshishi sublimatsiya tezligini oshirishi mumkin, biroq mahsulotning strukturaviy barqarorligi va sifatiga salbiy ta’sir ko‘rsatmasligi lozim.

Ikkinchidan, bosim suv bug‘ining harakatlanishi va sublimatsiya sharoitiga ta’sir qiladi. Shu sababli kamera bosimini mahsulotning harorat holatiga mos ravishda tanlash zarur.

Uchinchidan, mahsulot qalinligi issiqlikning ichki qatlamlarga yetib borishi va suv bug‘ining tashqariga chiqish masofasini belgilaydi. Qalinlik ortishi quritish davomiyligining oshishiga sabab bo‘lishi mumkin.

To‘rtinchidan, muzlatish tezligi muz kristallarining o‘lchamiga ta’sir qiladi. Muz kristallari sublimatsiyalangandan so‘ng hosil bo‘ladigan g‘ovaklar suv bug‘ining chiqishiga qarshilik ko‘rsatadi yoki uning harakatini yengillashtiradi.

Shu sababli ushbu parametrlarni o‘zaro bog‘liq holda o‘rganish va maqbul texnologik rejimlarni aniqlash muhim hisoblanadi.

Matematik modellashtirish va kutilayotgan natijalar

Issiqlik va massa almashinuvi jarayonlarini matematik modellashtirish orqali mahsulot ichidagi harorat va namlikning vaqt bo‘yicha o‘zgarishini baholash mumkin.

Jarayonning soddalashtirilgan issiqlik balansi quyidagi ko‘rinishda ifodalanadi:

$$\rho \cdot c_p \cdot (\partial T/\partial t) = \nabla \cdot (\lambda \nabla T) - Ls \cdot \dot{m}_s$$

Namlik almashinuvi jarayonining soddalashtirilgan tenglamasi:

$$\partial C/\partial t = \nabla \cdot (D_e \nabla C) - \dot{m}_s$$

Ushbu tenglamalarda ρ – mahsulot zichligi, c_p – solishtirma issiqlik sig‘imi, T – harorat, t – vaqt, λ – issiqlik o‘tkazuvchanlik koeffitsiyenti, D_e – samarali diffuziya koeffitsiyenti va $\dot{m}_s$ – sublimatsiya tezligini ifodalaydi.

Mazkur matematik ifodalar orqali quritish jarayonining turli sharoitlarda kechishini tahlil qilish, harorat va namlik taqsimotini aniqlash hamda texnologik parametrlarni optimallashtirish mumkin.

Tadqiqotning eksperimental bosqichida anjir mevalarining turli qalinlikdagi namunalari tanlanib, har xil muzlatish va sublimatsion quritish rejimlarida tajribalar o‘tkazilishi rejalashtiriladi. Tajriba davomida mahsulot massasi, namligi, harorati, kamera bosimi va quritish davomiyligi nazorat qilinadi.

Kutilayotgan natijalar sifatida anjir mevasining quritish kinetikasi qonuniyatlarini aniqlash, issiqlik va massa almashinuvi koeffitsiyentlarini tajriba asosida baholash, mahsulot qalinligi va texnologik parametrlarning quritish samaradorligiga ta’sirini asoslash ko‘zda tutiladi.

Shuningdek, mahsulotning rang, g‘ovaklik, qayta namlanish qobiliyati va biologik faol moddalarini saqlash darajasini baholash orqali samarali quritish rejimini tanlash imkoniyati yaratiladi.

Xulosa

Anjir mevasini vakuumli muzlatib quritish texnologiyasi yuqori sifatli quritilgan mahsulot olishning istiqbolli usullaridan biri hisoblanadi. Ushbu jarayonda issiqlik va massa almashinuvi o‘zaro bog‘liq holda kechib, mahsulotning quritish tezligi va yakuniy sifat ko‘rsatkichlarini belgilaydi.

Nazariy tahlillar asosida harorat, bosim, mahsulot qalinligi va muzlatish tezligi sublimatsion quritish samaradorligiga ta’sir qiluvchi asosiy omillar ekanligi aniqlandi. Jarayonni matematik modellashtirish orqali uning fizik qonuniyatlarini chuqurroq o‘rganish va texnologik parametrlarni optimallashtirish mumkin.

Kelgusida anjir mevasining aniq navlari bo‘yicha eksperimental tadqiqotlar o‘tkazish, issiqlik va massa almashinuvi koeffitsiyentlarini aniqlash hamda energiya tejamkor quritish rejimlarini ishlab chiqish maqsadga muvofiq.

FOYDALANILGAN ADABIYOTLAR

1. Li M., Zhou X. et al. Vacuum freeze and infrared-assisted hot air segmented combined drying of fig slices: drying characteristics, physicochemical properties, and moisture migration changes. *LWT*, 2026, 249, 119376. DOI: 10.1016/j.lwt.2026.119376.
2. Hu X. et al. Recent Advances and Future Perspectives on Heat and Mass Transfer Mechanisms Enhanced by Preformed Porous Media in Vacuum

Freeze-Drying of Agricultural and Food Products. *Foods*, 2025, 14(17), 2966. DOI: 10.3390/foods14172966.

3. Khalloufi S., Robert J.-L., Ratti C. Solid Foods Freeze-Drying Simulation and Experimental Data. *Journal of Food Process Engineering*, 2005, 28(2), 107–132. DOI: 10.1111/j.1745-4530.2005.00379.x.
4. Tsvetkov T.D., Vulchanov N. Toward the mathematical modeling of heat and mass transfer in vacuum freeze-drying. *Cryobiology*, 1981, 18(2), 155–165. DOI: 10.1016/0011-2240(81)90087-0.
5. Levin P. et al. Comparison of Knudsen Diffusion and the Dusty Gas Approach for the Modeling of the Freeze-Drying Process of Bulk Food Products. *Processes*, 2022, 10(3), 548. DOI: 10.3390/pr10030548.

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