

## **Xom ipakni standart kalavaga qayta o‘rash jarayonida emulsiyani mahalliyashtirish**

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**Annotatsiya:** Mazkur maqolada xom ipakni standart kalavaga qayta o‘rash jarayonida yuzaga keladigan uzilishlar muammosi tahlil qilinib, emulsiyalash bosqichining texnologik ahamiyati o‘rganildi. Respublikamiz pillakashlik korxonalarida qo‘llanilayotgan import emulsiyalar o‘rniga mahalliy xomashyolar asosida tayyorlangan emulsiyalar ishlab chiqildi va laboratoriya sharoitida sinovdan o‘tkazildi. Taklif etilgan mahalliyashtirilgan emulsiya texnologiyasi ishlab chiqarish samaradorligini oshirish, xom ipak sifatini yaxshilash va iqtisodiy xarajatlarni kamaytirishga xizmat qiladi.

**Kalit so‘zlar:** xom ipak, qayta o‘rash jarayoni, emulsiyalash, seritsin, uzilishlar soni, pillakashlik korxonasi

## **Localization of emulsion in the process of rewinding raw silk into standard coil**

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**Abstract:** This article analyses the problem of breaks occurring during the rewinding of raw silk into standard yarn and examines the technological significance of the emulsification stage. Emulsions prepared on the basis of local raw materials were developed and tested in laboratory conditions instead of imported emulsions used at silk reeling enterprises of our Republic. The proposed localized emulsion technology serves to increase production efficiency, improve the quality of raw silk, and reduce economic costs.

**Keywords:** raw silk, rewinding process, emulsification, sericin, breaking frequency, silk reeling enterprise

Respublikamiz pillakashlik korxonalaridagi ish jarayonlarni o'rganganimizda chuvib olingan xom ipakni qayta o'rab olishdagi muammolar mavjudligi va bu narsani bartaraf qilish uchun bir qator ishlar olib borganliklarini o'rgandik. Korxonalaridagi asosiy muammo qayta o'rash davrida uzilishlar soni ko'pligi va bunga sabab qayta o'rashdan oldingi jarayon emulsiyalash davrida xom ipakni emulsiya suvida qancha vaqt ushlab turish hamda emulsiya tarkibidagi qo'shiladigan moddalarni xom ipakka ta'siri yaxshi o'rganilmagan. Shu sababli deyarli barcha pillakashlik korxonalarini tayyor emulsiyani chet eldan olib ishlatadi va bu xom ipak ishlab chiqarishda ancha xarajat keltiradi. Bu muammolarni bartaraf etish uchun tayyor emulsiyani mahalliyashtirish ustida ishlar olib borildi.

Bizga ma'lumki pillani yetishtirish jarayonida uning xususiyatlariga turli omillar ta'sir ko'rsatadi masalan: ob-havo, berilayotgan ozuqa, xona harorati va xakazo. Bundan tashqari har xil viloyatdagi yoki tumandagi yetishtirilgan pilla xususiyati ham turlicha bo'ladi. Shu narsalarni inobatga olgan holda, korxonada chiqarilayotgan xom ipakni sifati, qayta o'ralish qobiliyati chuqur o'rganilib, emulsiya tarkibini o'zgartirish uchun har xil variantlarda emulsiya namunalari tayyorlandi va birinchi navbatda laboratoriya sharoitida sinab ko'rildi.

Bizga ma'lumki sifatli xom ipak olish uchun emulsiya jarayoni juda muhim ro'l o'ynaydi. Laboratoriya sharoitida hom ipakdagi deformatsiyani yechish uchun 5 xil variantda emulsiya tayyorlandi. Birinchi varyanda qattiqlik darajasi 4 mg/l bo'lgan suvda sinov o'tkazganimizda emulsiya tarkibini quyidagicha qilib oldik: soda (kalsiylangan) 0,25g; sovun (xo'jalik sovuni) 60%lidan 30g; 1litr suv bilan bir xil massa holatiga kelguncha 100 gradusda 10 minut davomida qaynatib aralashtiriladi. Tayyor emulsiyani maxsus idishga solib 3 litr sovuq suv aralashtirib emulsiya haroratini 40 gradusga tushirildi. 0,65m charxga o'ralgan xom ipakni emulsiyali maxsus idishga botirilib, 1,5 soat davomida ivitildi. Xuddi shu tarzda boshqa retseptlar ham tayyorlandi va bu quyidagi jadvalda keltirildi.

1-jadval

Turli xil variantdagi emulsiya tarkibi

Variantlar	Ishlatiladigan xomashyo			
1-variant	4 litr suv	soda (kalsiylangan) 0,25g	(xo'jalik sovuni) 60%lidan 30g	Tayyor emulsiyani harorati 40°C
2-variant	4 litr suv	xo'jalik sovuni 60%li 25gr	glitserin 3,5gr	Tayyor emulsiyani harorati 42°C
3-variant	4 litr suv	xo'jalik sovuni 65%li 20gr	kunga boqar moyi 2,5gr	Tayyor emulsiyani harorati 45°C
4-variant	4 litr suv	xo'jalik sovuni 70%li 20gr	soda 30gr	Tayyor emulsiyani harorati 43°C
5-variant	4 litr suv	xo'jalik sovuni 70%li 20gr	soda 15gr;	Tayyor emulsiyani

			glitserin 3,5gr	harorati 45°C
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Tayyorlangan emulsiyalar 0,65 perimetrli charxlarga o‘ralgan xom ipaklarga ishlov berildi va qayta o‘rash jarayonida qo‘llab ko‘rilganda 1-variantda 4, 5 marta uzilishlar sodir bo‘ldi. 2-variantda esa 3 marta uzilish sodir bo‘ldi va qolgan variantlarimizda uzilishlar sodir bo‘lmadi.

Xom ipakni qayta o‘rash jarayonini yengillashtirish maqsadida tayyorlangan emulsiyani ishlatganda charx qirralarida seritsin qotishini va qoldiq zo‘riqishni oldini oladi. Tayyor emulsiya mahalliyashtiriladi. Kichikdan, standart katta charxlarga qayta o‘ralgan xom-ipakda charx qirralaridagi zo‘riqish asosida yelimlanish holatidan istisno bo‘ladi. Ipakchilik korxonalarida mahalliyashtirilgan emulsiyadan foylanilsa, katta iqtisodiy samaradorlikka erishish kutiladi.

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