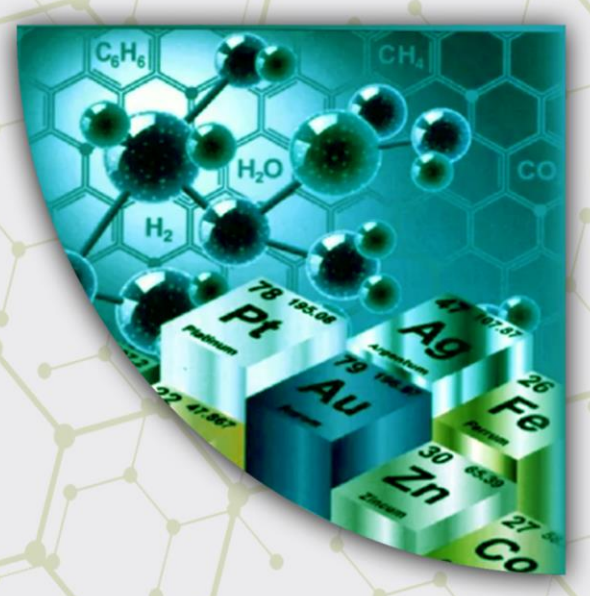
BIOLOGIYA VA KIMYO FANLARI ILMIY JURNALI



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“BIOLOGIYA VA KIMYO FANLARI ILMIY JURNALI”

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Ushbu to‘plamda “Biologiya va Kimyo Fanlari Ilmiy Jurnali” respublika ilmiy jurnaliga kelib tushgan maqolalar o‘rin olgan. Mazkur jurnalda zamonaviy ta’lim tizimini rivojlantirish jarayonida innovatsion ta’lim texnologiyalarini joriy etish va loyihalashtirish, integratsion ta’limni rivojlantirishda yo‘nalishlar bo‘yicha kreativ g’oyalar, takliflar va yechimlarni amalga oshirish maqsad qilib olingan. Mazkur jurnal materiallaridan OTM professor-o‘qituvchilari, akademik litsey va kasb-hunar kollejlari va umumta’lim maktab o‘qituvchilari, mustaqil tadqiqotchilar, magistrantlar, ilmiy xodimlar, iqtidorli talabalar hamda shu sohada ilmiy ish olib borayotgan tadqiqotchilar foydalaishlari mumkin.

Eslatma! Jurnal materiallari to‘plamiga kiritilgan maqolalardagi raqamlar, ma’lumotlar haqqoniyligiga va keltirilgan iqtiboslar to‘g’riligiga mualliflar shaxsan javobgardirlar.

TAHRIRIYAT

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MUNDARIJA:

PLUM DRYING TECHNALOGY

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Anotation: *in our country there are a lot of fruit species Judah. The drying technology of each product is different. Drying the product ensures that the product is stored for a longer period of time, preventing waste, etc. Each product must be protected from pests. Including,it is necessary to control the accounting for the placement of dried plums, which are brought into storage, not damaged by pests and a number of other features.*

Keywords: *plum, plum varieties dry product*

Plum, olu (Prunus)- more than 30 species are known, being considered a granular fruit tree or shrub belonging to the family of rhinos. The most common type is the common Plum, which is thought to be due to the natural interbreeding of wild plums(terins)with mountain ash.

Homeland-Asia Minor, The Caucasus, Northern Iran. Brought to Uzbekistan through Iran. Currently, White olu, yellow olu, black olu and the resulting varieties are distributed in Central Asia. One of the beneficial properties of plums is that it does not choose a place. They have about 2,000 varieties (more than 200 in Uzbekistan). In Uzbekistan, the planting area stands after the Oak among the coniferous fruit trees. The leaves are succulent, the flowers are solitary or 2-3 erect, white or pubescent. Plum fruit is round, ovoid, oblong, 60-100 g, yellow, green, red, bluish - black; covered with wax, it contains 14-21% sugar, 0.5-1.2% acid, nitrogenous substances and vitamins. It is eaten in freshness, smoked, canned juice drinks, Jam, Jam, minced meat and other products are seasoned.

Plums are mainly propagated by grafting and root cuttings. The best graft for plums is Mountain Ash. This tree seedling enters the 4th - 6th hole after being planted. In Uzbekistan, it blooms in March - April, the fruit ripens from the second half of June to the end of September.

In Uzbekistan, such varieties as Vengerka, Berton,ispolin plum, Samarkand black cherry, Washington are planted.

One of the ways to preserve plums is to make them a bark. Plum stump is a good product for the human organism as a parquet treatment. Varieties of plum Berton, Ispolinsky, Sogdiana, Kora olu, Samarkandskaya, Vengerka ajanskaya, Vengerka fioletovaya are best suited for drying.The production technology consists of disconnecting, transporting, storing, varietal separation, inspection, washing, boiling

water ripening, drying, wetting, packing and storage in boxes. Dried plums should have a well-ripened B'liki. For this reason, it breaks down when the obdon matures and its sugar, acid and other substances reach the appropriate level.Plums are sorted by size,maturity, quality. Fruits that have been crushed, rotted, infected and damaged from cartilage are separated.Before drying the plum varieties on the carpet, which is taken into account late ripening (August-sntyabr), it is treated (blanshirovka) in a working mixture. Drying olhuri after September 10-15 is not recommended, since the fruits do not dry until autumn rains. Therefore, the product is processed and dried earlier in an alkali mixture of 0.5%. The purpose of processing is to make small cracks in fruit meat dressing and speed up the drying process.For processing plum fruits, it is brought to a boil by pouring cleaning into a pot, after which it is boiled by adding 500 gr of alkali (caustic soda) to 100 liters of water, after which the fruits are placed in small (2-3 kg of li) baskets and placed in boiling alkali mixture (product maturity, depending on the variety) is dipped for 10-30 seconds and dried in the open field dried in special boxes or kraft bags for storing dried plums.The mouth is well sealed and placed on clean dry shelves. The first shelf will be 10 cm above the ground. A 0.5-meter path is left between the walls and racks, and one central 1.5-1.8-meter side paths are left between the rows.In order for the listed product to be easy to lay and pick up, the racks should be 2.5 meters at the top. The product is separated into batches and varieties on racks. Each product Party must have a label. It must contain the name of the product, brand grade, weight, prepared and accepted deadlines.

The organic acids contained in plums are also an important quality indicator, they determine the sour taste of fruits, and their accumulation during storage determines the degree of oxidation processes. Organic acids are of particular interest because they determine the specific taste of the fruit, and their overall composition depends on the varietal characteristics. Depending on the variety of plum fruit, organic acids include citric, Apple, oxalate, Jackrabbit acids, as well as malonic and fumaric acids. The study of changes in the amount of organic acids determined by titrating acid is important in comparing the research methods carried out.

According to data, the acidity of fresh plum fruits that titrate to Apple acid is significantly dependent on the variety and varies from 0.6% to 1.0%. During freezing and storage, the titrating acidity in the fruits of all plum varieties increases, the value of this indicator in Plum varies from 0.8% (Hungarian variety) to 1.0% (Samarkand variety), but the amount of organic acids depends on the variety of plum. Ascarbic acid is of great physiological importance, participating in the processes of nitrogen, carbohydrate metabolism, the formation of deoxyribonucleic acid, the maintenance of the cell nucleus and the intercellular substance of the connective tissue in the normal state of the walls of the intercellular substance of the tissue. The daily requirement for vitamin C is 50-100 mg. This need is not easy to meet in the winter-spring period. Therefore, great attention is paid to the preservation of vitamin C during various processing in plant products, especially since ascarbic acid is an unstable vitamin.

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MEVA-SABZAVOTLANI QURITISH USULLARI QISHLOQ XOJALIK MAHSULOTLARINI QAYTA DASTLABKI QAYTA ISHLASH

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Annotatsiya: *Dunyo aholisi kundan-kunga ortib borayotganligi sababli mahsulotlarga bo'lgan talab ham kun sayin ortib bormoqda. Mahsulotlarni yilning istalgan bir vaqtida istemol qila olishimiz uchun mahsulotlar saqlash usullari yordamida saqlanadi. Saqlashning bugungi kunda juda ko'p usullari rivojlangan bo'lib shulardan biri mahsulotlarni quritib saqlash usuli hisoblanadi.Quritib saqlashning ahamiyati kam xarajat , oddiy va eng qadimiy usullardan biri hisoblanadi.*

Kalit so'zlar: *Meva-sabzavot, quritish, saqlash, fizik, Mehanik, Trubka, yashik, soyaki, Oq kishmish .*

Quritish -odatda namlikni saqlaydigan mahsulotga issiqlikni qo'llash va uchuvchan ho'l tarkibiy qism suvni yo'q qilish jarayonini anglatadi.Meva va sabzavotlarni quritish - ularni saqlashning arzon va juda qiyin usullaridan bir bo'lib, bugungi kunda quyosh yordamida quritish biz uchun ananaviy tusga aylanib ulgurgan. Ushbu ishlarni yanada rivojlantirish va soxaga innovatsion yondashuvlarni tadbiq etish orqali quritilayotgan maxsulotning sifati, saqlash muddati va boshqa hususiyatlarini oshirish mumkin. Meva-sabzavotlarni quritganda ulardan juda ko'p miqdorda suv bug'lanib ketadi. Bu sharoitda mikroorganizmlar rivojlana olmaydi va mahsulot buzilmaydi. Buning uchun esa qurigan mahsulot standart namlikda , mahsus idishda va qoidaga binoan saqlash sharoitida bo'lishi kerak. Har qanday qurigan mahsulotlar yaxshi saqlanadi va uzoq masofalarga tashish juda qulay hisoblanadi. Quritish bo'yicha jarayonlar qish vaqtida olib borilsa , u holda sun'iy quritish moslamalarida ya'ni mahsus labaratoriya sharoitida ishlaydigan pechka yoki javonlarda olib boriladi. Yoz vaqtida esa har qanday quritish maydonlarida olib boriladi. Meva -sabzavotlar quritish maydoniga olib kelingandan so'ng tortiladi va saralanadi. Mahsulotlar yetilganligi, rangi, shakli, o'lchamiga qarab navlarga ajratiladi. Meva-sabzavotlarga yopishgan har xil xas-cho'p, qum, mikroorganizmlar shuningdek zaharli moddalarning qoldiqlari yuvib tashlanadi. Mahsulotlar toza suvda yuviladi. Ularning har kilogramiga 0.7 litr suv sarflanadi. Mahsulotlar miqdori ko'p bo'lmasa bu mahsulotlar bochka yoki kichikroq idishlarda qo'lda yuvilsa ham bo'ladi. Qishloq xo'jalik maxsulotlarini quyosh yordamida quritish uchun yaratilgan bir nechta innovatsion texnologiyalar mavjud bo'lib, ushbu texnologiyalarni bir necha usullari va qurilmalarni ko'rish mumkin. Bu usullarga esa mahsulotlarni to'g'ridan-to'g'ri quyosh

nurida quritish usuli kiradi. Bu usulda mahsulotlar ochiq maydonda quyosh to'g'ridan-to'g'ri tushadigan maydonga yozdirilgan holatda teriladi va quritiladi.

Ikkinch usul esa Maxsulotlarni issiqxona (parnik) prinsipida quritish.

Birinchi usuldan farqli ravishda ushbu xolatda maxsulot tezroq quriydi, chunki bu yerda issiqxona (parnik) prinsipi qo'llanilgan. Ushbu xolatda oldingi usulga qaraganda quritilayotgan maxsulotni begona aralashmalardan ham saqlaydi.

Uchinchi usulimiz Maxsulotlarni maxsus yashiklarga joylab quritish.

Ushbu usulda maxsulotlar maxsus joylarga o'rnatiladi va quyosh havo kollektori yordamida issiq xavo xaydaladi. Ushbu xolatda oldingi usullardan afzallik jixati maxsulotni quyosh radiatsiyasidan salqaydi.

To'rtinchi usulimiz esa mahsulotlarni maxsus trubkalardan o'tgan issiq havoda quritish usuli hisoblanadi. Ushbu xolatda ham yuqorida ko'rsatilgandek amal bajariladi. Faqatgina birgina farqi ularda qo'llanilayotgan quyosh xavo kollektoridadir. Ya'ni bu xolatda xavo maxsus issiqlikni yaxshi yutuvchi va yaxshi tarqatuvchu trubkalardan o'tkaziladi. Ushbu xoltda xam maxsulot quyosh radiatsiyasidan saqlanadi.

Mahsulotlarni quritishda asosan ikki xil quritish jarayomi olib boriladi. Birinchi marotaba mevaning turiga qarab1-2 kundan 5-6 marotabagacha oftob tik tushadigan joylarga yoyib qo'yiladi. Oftob yordamida mevaning namligi qochirilgandan so'ngra mahsulotlar ma'lum idishlarga solinadi va so'ngra 4-10 kun davomida yana qutitish jarayoni olib boriladi. Ayrim mevalarni ochiq havoda mahsus chodirlarda quyosh nurlaridan asrash uchun ustiga ma'lum miqdorda oq mato tortilgan holda quritish mumkin bo'ladi. Bunday matolar ostida quritilgan mahsulotlarning rangi yorqin, mahsulot chiqishi va vitaminliligi yuqoriroq miqdorda bo'ladi. Bu usulda saqlashning yana bir qulaylik tarafi mahsulotni turli xil chang g'uborlardan himoya qilish mumkun bo'ladi. Har qanday mahsulotni quritish uzoq muddat saqlash imkonini beradi hamda transport mashinalari orqali tashish ancha qulayliklarni yaratadi. Quritishni uch xil usulda amalga oshirish mumkin.

1.Mehanik

2.Fizik-kimyoviy

3. Issiqlik ta'sirida suvsizlantirish, quritish.

Yuqorida qaydv etilgan usullardan eng samaralisi issiqlik tasirida suvsizlantirish ya'ni quritishdir. CHunki quritish jarayonida to'liq suvsizlantirishga erishsa bo'ladi.Fizik mohiyatiga ko'ra quritish jarayoni murakkab diffusion jarayondir. Uning tezligi quritilayotgan material ichidan namlikni atrof muhitga tarqalishi diffuziya tezligi bilan belgilanadi.Ma'lumki quritish jarayoni issiqlik va namlikning material ichida harakati va material yuzasidan atrof muhitga uzatilishidir. SHunday qilib quritish bu issiqlik va massa almashinish jarayonlarining bir-biri bilan uzviy bog'langan jarayonlar majmuasidir.

Meva-sabzavotlarni quritishning yana bir usuli bu- soyaki usulida quritishdir. Bu usul mohiyati shundan iboratki mevalar soyada mahsus shamol esadigan joylarga qurilgan soyaki xonalarda quritiladi. Bunday sharoit, sutka davomida haroratning

xilma-xilligi, doimiy harakatda bo'lgan havo oqimi tog'oldi-tog'li tumanlarda mavjud. Soyaki xonalarni qurishdan oldin doimiy harakatdagi havo oqimining umumiy yo'nalishi aniqlanadi va qurilgan soyaki xonalarning uzunasiga joylashadigan xonalarida yo'riqsimon xonalari shamol esadigan tarafdan ochiladi. Sortlarga ajratilgan va so'litilgan mahsulotjuft-juft holda yoki bitta-bittadan reykadan yasalgan mahsus romlarga osiladi. Soyaki xona shiftiga osilgan rom poldan taxminan 0.5m baland bo'lishi kerak . Har bir mevani romlarga osish qulay bo'lishi uchun ularni xona ichiga ikki qatordan xona o'rtasidan 1-1.2m kenglikda o'tish joyi qoldirilgan holaomlar orasida taxminan 50-60sm masofa bo'ladi. Quritish davomida har bir mahsulot vaqti-vaqti bilan ko'zdan kechiriladi, orasida zazarlangan, shikast yetganlari olib tashlanadi. Mahsulotlardan masalan uzum soyaki usulida quritilganda tarkibida qand moddasi 23-24 % ni tashkil etgan davrda teriladigan faqat oq kishmish navi quritiladi. Yangi uzulgan uzumga bo'lgan talablar har bosh uzum faqat yashil rangda, qand moddasi kondision darajadsa bo'lishi kerak. Bunday uzumlar quritish davomida tabiiy rangini yaxshi saqlaydi.

Mevalarni quritib saqlashning yana bir usuli tokzorlar qatori orasida quritish hisoblanadi. Uzumzorlarni o'zida qator oralarida quritish quritish uchun tokni tik so'rilarda o'stirilgan holatda 3x2.5m sxemadagi tokzorlar qulay keladi. Uzumzorda hosilni terishdan 15-20 kun oldin tok barglarini siyraklashtirib sug'orishni to'xtatish kerak. CHunki ortiqcha miqdordagi suv quritish muddatini cho'zib yuboradi va qurigan mayiz sifatiga salbiy ta'sir qiladi.Uzum terishdan oldin qator oralaridagi tuproq tekislanadi va tekislangan yerga mahsus qog'oz yopiladi. So'ng qog'oz ustiga uzum boshlari qator qilib jopylashtiriladi. Uzum so'ligandan keyin 8-10 kunda uzum boshi to'nkariladi va quritish oxirigacha shunday qoldiriladi. Boshqa mahsulotlar singari uzum ham standart namlikda 18% ligida alohida ajratilgan joyda saqlanadi.Shu tartibda mahsulot quritiladi. Har qanday mahsulotni quritib saqlash saqlash davomiyligini uzaytiradi, xarajatini kamaytirad,hamda eksport uchun tashish mobaynida qulaylikni keltirib chiqaradi.Quritish asosan quyosh yordamida amalga oshiriladi va qadimdan hozirgacha davom etib kelmoqda.

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QISHLOQ XOJALIK MAHSULOTLARINI QAYTA DASTLABKI QAYTA ISHLASH

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Annotatsiya: *Mazkur maqolada qishloq xo`jalik mahsulotlarini saqlash va qayta ishlash texnologiyasini rivojlanayotgan bosqichlarini o`rganish va bir nechta mahsulotlarni saqlash va qayta ishlash togrisida malumot beriladi.*

Kalit sozlar: *Qishloq xo`jalik , saqlash , daromad, konserva , rejim , mahsulotlar , texnologiya.*

Qishloq xo'jaligi mahsulotlari, shu jumladan, meva-sabzavot mahsulotlarini qayta ishlashni yo'lga qo'yish orqali ishlab chiqaruvchi (fermer xo'jaligi) uchun qo''shimcha barqaror daromad manbai yaratiladi. Mahsulotni qayta ishlash orqali unga qo„shimcha qiymat qo'shiladi, yani mahsulotning qiymati ortib boradi.

Ma'lumki mahsulotlarni saqlash usul va rejimlarini qo`llashni, xom ashyoni turiga mos qayta ishlash texnologiyasini tanlash va ishlab chiqarishda qo`llashni, xom ashyo va konservalangan mahsulotni qadoqlashda istiqbolli idishlardan foydalanishni, mahsulot sifatiga turli omillar ta`sirini, rejimlarga rioya qilgan holda saqlash muddatlarini uzaytirish yo`llarini izlashni, qayta ishlashda samarali, kam chiqimli texnologiyani tadbiq etishni, yuqori sifatli konservalangan mahsulotlar tayyorlash sohasida barcha ishlarni xaqaro miqyosida uyg`unlashtirnsh, me`yorlash, ulchash va tekshirish usul va vositalarini belgilash, shu bilan bir qatorda amalda qo`llashni o`rganishdan iborat.

Mahsulotni qayta ishlash darajasi turlicha, ya'ni dastlabki qayta ishlash yoki chuqur qayta ishlash bo'lishi mumkin. Dastlabki qayta ishlashga quritish kabi oddiy amaliyotlar kirsa, chuqur qayta ishlash mahsulotga bir necha bosqichlarda ishlov berish, ya'ni konsyervatsiya qilish, sharbat olish, qadoqlash kabi Amaliyotlarni o'z ichiga oladi.

Qayta ishlashni yo'lga qo'yishni rejalashtirgan xo'jalik yoki tadbirkorlar, avvalo, o'z atrofida xomashyo bazasining yetarli bo'lishiga va mavjud xomashyo hajmidan kelib chiqqan holda xarid qilib, o'rnatiladigan qayta ishlash uskunasining quvvatini to'g'ri tanlanishiga e'tibor qaratishlari lozim bo'ladi. Yana bir asosiy jihat ishlab chiqarilgan mahsulot uchun bozor masalasidir. Ya'ni, ishlab chiqarilgan mahsulot tashqi bozorda sotiladimi (eksport), ichki bozorda sotiladimi, buni aniq rejalashtirish kerak. Agar ishlab chiqariladigan mahsulot eksport qilinadigan bo'lsa, sotib oluvchi davlatning standart talablariga to'liq javob berishi, shuningdek, mahsulot ham narx jihatdan, ham sifat jihatdan raqobatbardosh bo'lishi lozim.

Qishloq xo’jalik maxsulotlaridan eng ko’p qayta ishlanadigan msxsulot bular mevalardir . Sababi boshqa maxsulotlarga nisbatan mevalar ko’ istemol qilinadi va ular ozuqaviyligi jihatdan ham yuqori kaloriyali boladi . Mevalardan bizning sharoitda ko’pincha sharbatlar tayyorlanadi.

Meva sharbatlari yangi uzilgan, yetilgan meva va rezavor rpcvalarni siqib yoki shibbalab olinadi. Konserva qilingan meva sharbatlarida hamma ozuqa moddalar yaxshi saqlanadi. Meva va rezavor mevalardan sharbat chiqishi turli xom ashyolarda har xil bo'ladi va mahsulotning sifatiga, maydalash, shibbalashga bogTiq. Olmadan 55-80, gilosdan 60-70, olxo‘ridan 70- 80, qizil qorag‘atdan 70-80, qora qorag‘atdan 55-70 va uzumdan 70- 80 foizgacha sharbat chiqadi.

Sharbat olish uchun mevalar awal maxsus1 mashinalarda yoki dush ostida yuviladi. So‘ngra shnekli isitgichlarda sterillangan tozalash mashinasiga tushadi. Dastlabki mashinada danagi, urug‘i va po‘stlog‘idan tozalanib bo4qaga aylantiriladi. Ikkinchi mashinada bo‘tqa diametri 0,5 mm li teshikli elakdan o'tkaziladi. Ba’zan sharbatlarga maxsus idishlarda qiyom qo'shiladi. Sentrofuga yordamida sharbat oxirgi qoldiq, yirik quyqalardan tozalanib tiniq sof sharbatga aylantiriladi. Nihoyat sharbat qizdirilib (50-60 °S) deaeratsiyalanadi (tarkibidagi kislorod kefikaziladi) va idishlarga solinib pasterizatsiyalanadi. Tiniq va quyuq (laxmli) sharbatlar olish uchun meva va rezavor mevalar tozalab yuvilgandan so‘ng presslanadi, eziladi va shibbalanib olinadi.

Sharbat olishda mevalarni ezishdan oldin urugli mevalar universal KDP-Zm maydalagich yordamida, bashqa mevalar maxsus pichoqli uskunada maydalanadi. Sharbat chiqishni ko'paytinsh maqsadida ezilgan mevalar (80-85 °S) isitiladi. Sharbat ishlab chiqishda turli xil konstruksiyali shibbalagichlardan foydalaniladi. Navbatdagi jarayon sharbatni tindirish hisoblanadi. Tindirilgan sharbatlar maxsus vakuum apparatlarda pasterizatsiya qilinadi.

Tinishi qiyin bolgan sharbatlaming (olma, olxo‘ri) tinishni tezlash maqsadida mog‘or zamburug‘lar yoki oshlovchi moddalar (jelatin) dan foydalaniladi. Bundan tashqari quyuqlashtirilgan sharbatlar ham ishlab chiqariladi. Buning uchun sharbatlar (tarkibida 10-12 foiz quruq moddalar mavjud) maxsus vakuum asboblarda 50-60 °S da qaynatiladi. Qaynatish sharbatning zichligi 1,274 kg/m kub bolguncha davom etadi. Sharbat 20 S gacha sovutilib, keyin zichlik aniqlanadi. Sharbatda quruq modda miqdori 50-60 foizgacha bolishi mumkin. Quyuqlashtirilgan sharbat 10-15 °S haroratda qorong‘u xonalarda saqlanadi. Meva va rezavor mevalar sharbatiga shakar qo‘shib turli xil qiyomlar tayyorlanadi. Qiyomlarda quruq modda 60-65 foizgacha boladi. Mevalarning taxirligiga qarab sharbatlarga 5-15% shakar qo‘shiladi. Bunda 3296 kg sharbatga 604 kg shakar qo‘shiladi .

Bundan tashqari O’zbekiston don va don maxsulotlari yetishtirish bo’yicha yuqori o’rinlarda turganligi sababli ularni qayta ishlash ham rivojlangan hisoblandi.

Don maxsulotlaridan ayniqsa bug’doy yuqori o’rinlarda turadi qayta ishash bo’yicha. Bug’doydan asosan un tayyorlanadi. Dondan un tayyorlash bir nechta jaaraayonlarni o’z ichiga oladi.

Ma’lumki, donni yanchish natijasida olingan mahsulot unning chiqish miqdori deyiladi. Unning chiqishi qayta ishlangan miqdoriga nisbatan foiz bilan belgilanadi. Barcha don unga to‘liqligicha aylantirilganda u 100 foizlik (amalda 99,5 %) bo‘lishi mumkin. Ammo bu unning sifatida bir qator nuqsonlar - g‘archillash, o^zgargan ta’m, xunuk rang kuzatilishi mumkin. Shuning uchun bunday un olish qo‘llanilmaydi. Respublikamizda unni quyidagi ohsh usuli va chiqishi mavjud: Bug‘doy imi:72-75 foizli - bir navli 72-78 foizli - ikki va uch navli 96 foizli - bir navli (kepakli) Javdar uni: 63 foizli — bir navli 78-85 foizli - ikki navli 87 foizli - bir navli 95 foizli - bir navli (kepakli) Aralash (bug‘doy-javdar; javdar-bug‘doy) Bug‘doy-javdar 96 foizli - bir navli Javdar-bug‘doy 95 foizli - bir navli: Eslatma: 70% bug'doy, 30% javdardan olingan un bug'doyjavdar uni; 60% javdar, 40% bug'doydan olingan un javdar-bug‘doy uni deyiladi.

Bundan tashqari don maxsulotalaridan omixta yem ham tayyorlanadi. Chorvachilikni sanoat negizida yanada rivojlantirish xo‘jaliklarda , vujudga keltirilayotgan ozuqa bazasining faqat miqdorini emas, baiki sifat tarkibini ham yaxshilashni talab qilmoqda. Shu sabab omixta yem chorvachilikda muhim ahamiyatga ega .ozuqa bazasi tarkibida barcha kerakli biologik faol va ozuqa moddalar bolgan, mollami to'ydirib boqishni ta’minlaydigan yuqori sifatli yem-xashakdan iborat bolishi kerak. Mollami to‘yimli va sifatli vemlar bilan boqishni va yem-xashakdan foydalanish samaradorligini oshirishni tashkil etish chorva mollari mahsuldorligini oshirishning eng yaxshi natija beradigan omilidir. Chunki mahsulot yetishtirish uchun qilingan sarflar tarkibining 60% ini va undan ham ko‘proq qismini yem-xashak tashkil etadi. Turli ozuqalardan to‘g‘ri tanlab oiingan omixta yemlar to la qimmatli boladi, chunki bir xil ozuqada bo'lmagan moddalar ikkinchi xil ozuqada boladi va shunday qilib, bir-birining o'rnini tolg‘azib, tola qimmatli ozuqa hosil qiladi va bu aralash yemning oziqlik qiymati ayrim ozuqadan yoki bir xil aralashma ozuqadan yuqori boladi. Omixta yem aniq ko‘rsatma asosida tayyorlanadi. Barcha omixta yemlar ikki guruhga bolinadi: tola ratsionli va konsentrat omixta yemlar. Konsentrat omixta yemlar dag'al, shirador (sersuv) va boshqa mahalliy ozuqalarga qo‘sliishga moljallangan, ular bir xil sochiluvchan massa, briket va granula (dona-dona qilib maydalangan) shaklda tayyorlanadi. Tola ratsionli omixta yemlar o'zlashtirilishi (oziqligi) jihatidan to la qimmatli boladi, mollarga boshqa narsa qo‘shmasdan beriladi hamda ko‘pincha briket va granula shaklda tayyorlanadi. Tola ratsionli omixta yemlar bo‘yi 160-170 mm, eni 70-80 mm va qalmligi (balandligi) 30-60 mm bolgan odatdagi glsht shaklida tayyorlanadi. Konsentrat omixta yemlar konsentratsiyalangan turh ozuqalardan tarkib topadi. Ular bir jinsli sochma massa shaklida uch xil qilib tayyorlanadi: mayin, o‘rta va dag‘al. Konsentrat omixta yemlar ba’zan dona-dona qilib maydalangan shaklda yoki galet - teshik-teshik non shaklida ham tayyorlanadi. Sochiluvchan aralash yemlar ishlab chiqarishning asosi quyidagi jarayonlardan iborat: donni organik va mineral aralashmalardan tozalash, arpa va sulining po‘stini ajratib tashlash, tozalangan donni maydalash, ingradientlami dozalash va aralashtirish kabilar. Briket qilingan to la

ratsionli omixta yemlar, shuningdek, dona-dona qilib maydalangan yoki galet shaklidagi aralash yemlar tayyorlashda ulami yana qo‘shimcha ishlash talab qilinadi.

Xuslosa sifatida shuni aytish mumikinki O`rta Osiyoda qishloq xo’jalik mahsulotlarini saqlash va qayta ishlash bo’yicha Markaziy Osiyoda IX-XI asrlarda bir qator asarlar yaratildi. Ularda dehqonchilik mahsulotlarini qayta ishlash tilga olingan. Ular bu mahsulotlarning foydaliligini va ularni qishin-yozin iste’mol qilish zarurligini bayon etganlar. Donni saqlash va qayta ishlash korxonalari hozirgi holga kelguncha uzoq rivojlanish yo’lini bosib o’tdi. Don tegirmoni tarixi mashina sistemasini asta rivojlanishi va ishlab chiqarish usullarini o’zgarishini o’z ichiga oladi. Suv tegirmonidan foydalanish birinchi marta eramizdan avvalgi X-asr boshlarida quldor Ueartu davlatida suv g’ildiraklari o’rnatilgan tegirmonlarda qo’llanilgan. Inson qachondan boshlab donni oziq-ovqat sifatida iste’mol qilayotganini aniq aytish qiyin.

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