

COV KHOOM CIA QAUB MAM NOJ

Raws li Lub Chaw Ua Hauj Lwm Tswj Khoom Noj Khoom Haus thiab Tshuaj (FDA), cov khoom cia qaub mam noj yog cov khoom noj uas muaj kua qaub tsawg txhawm rau ntxiv cov kua qaub kom tau pH ntawm 4.6 los sis qis dua, thiab muaj dej ua hauj lwm ntau dua li 0.85. [1] Los ntawm qhov kev pom ntawm kev cai lij choj, cov khoom noj raug faib ua hom khoom muaj kua qaub, cov khoom noj uas muaj kua qaub tsawg los sis cov khoom cia qaub mam noj yuav nyob ntawm seb nws muaj cov kua qaub raws li ib txwm ntawm txhua hom khoom noj. Ib yam khoom uas qaub yuav raug ntsuas raws li qhov ntau tsawg ntawm pH. Yog tias cov khoom nyoos los sis cov khoom xub thawj muaj pH siab dua 4.6 nws yuav suav tias yog cov khoom noj uas muaj kua qaub tsawg. Yog tias tus pH nyoos los sis tus xub thawj qis dua 4.6 li ntawv ces cov khoom noj hom ntawv raug xam tias yog cov khoom noj uas muaj kua qaub. Cov khoom noj uas muaj kua qaub tsawg yog cov khoom noj uas muaj kev ntxiv cov kua qaub los sis cov khoom sib xyaw uas muaj kua qaub uas tau ntxiv kom muaj tus pH sib npaug ntawm 4.6 los sis qis dua. Tus pH sib npaug txhais tau tias pH tus kawg uas ntsuas hauv cov khoom noj uas muaj kua qaub tom qab txhua cov khoom noj sib xyaw ntawm cov khoom noj uas muaj kua qaub sib npaug lawm. [2] Cov khoom noj uas muaj kua qaub ntau suav nrog cov kua sauces BBQ, cov kua sauces kub, cov kua salsas, cov dib tsau ua kua qaub thiab cov khoom sib xyaw cocktail.

Phau ntawv qhia no yog muaj los qhia luv-luv rau tus neeg nyeem ntawv txog cov txheej txheem ntawm kev tsim cov khoom cia qaub mam noj, feem ntau lawm yuav tuaj yeem khaws cia tau ntev yog tsis txhob tso rau tub txias (cov lo lus hais txog, nws tuaj yeem khaws cia sab nraum lub tub yees tau). Hauv qee kis no, kev ntim cov khoom noj kub uas muaj kua qaub rau hauv lub hwj kawg thiab tuav sab hau nqis (tig sab hau nqis) rau qhov kub txias raws lub sij hawm piav qhia hauv cov ntaub ntawv, yuav ua rau cov khoom ua tiav uas khaws cia tau ntev yam tsis tau tso rau tub txias.

KEV PIB LUB LAG LUAM TSIM KHOOM CIA QAUB MAM NOJ

Kev nthuav dav ntawm kev lag luam tsim cov khoom cia qaub noj yog ib qho txheej txheem uas muaj ntau kauj ruam uas xaus thaum cov txheej txheem kev kub uas tau lees paub raug xa mus rau Lub Chaw Hauj Lwm Tswj Khoom Noj Khoom Haus thiab Tshuaj (FDA). Hauv Minnesota, tseem yuav koom tes ua hauj lwm nrog MN Lub Thawj Fab Saib Xyuas Hauj Lwm Txog Kev Ua Liaj Ua Teb Ua Qoob Ua Loo (MDA) kom tau daim ntawv tso cai ua lag luam rau cov chaw tsim khoom noj. Muaj peb yam tseem ceeb uas yuav tsum tau ua kom tau ntawm daim ntawv tso cai ua lag luam rau cov khoom cia qaub mam noj:

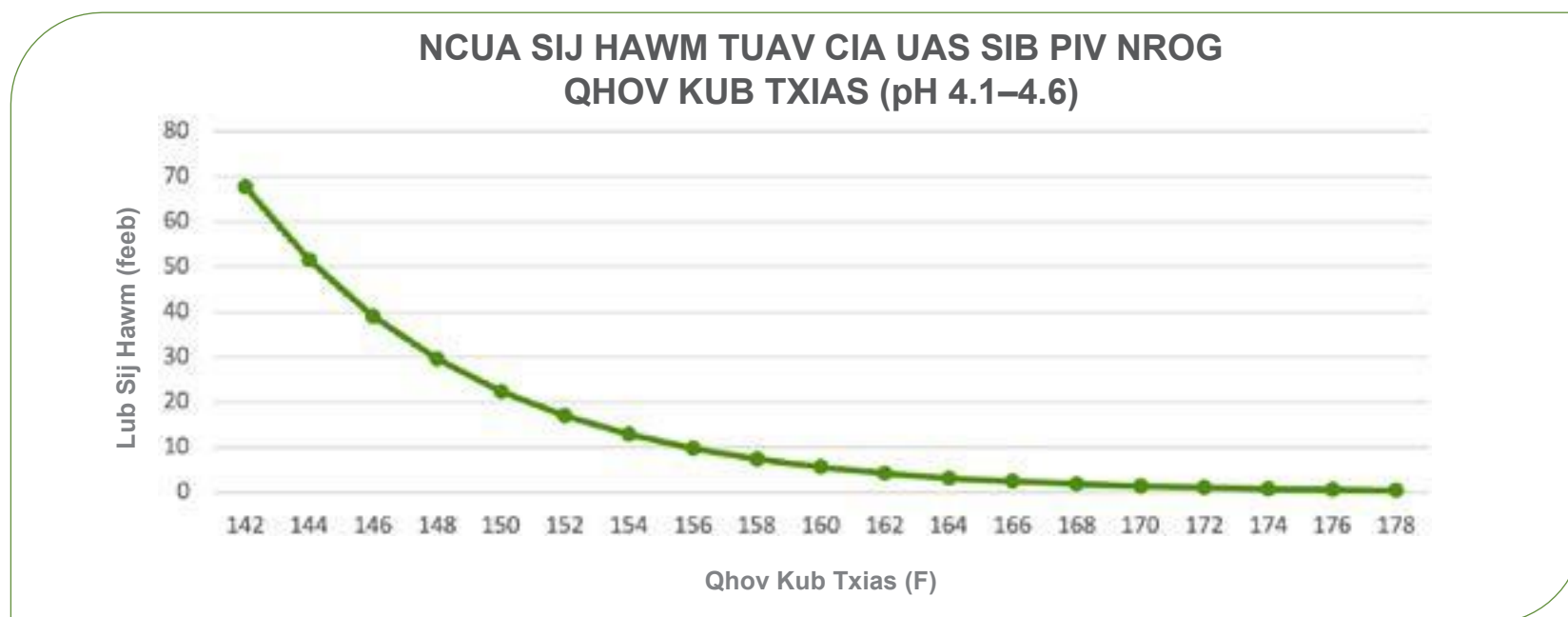
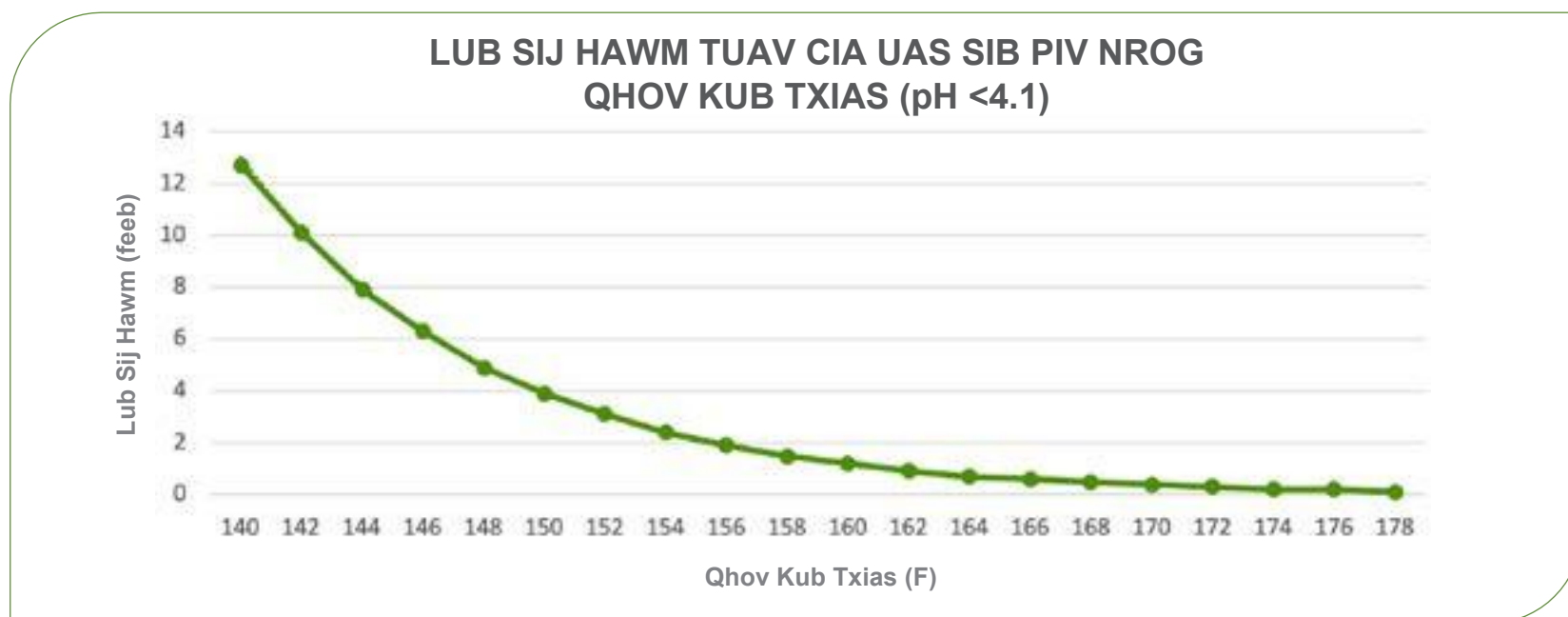
1. Ua kom koj tus qauv txoj lag luam raug cai nrog [Tus Tuav Ntaub Ntawv ntawm Lub Xeev MN](#) (piv txwv li, LLC).
2. Tshem chaw tsim khoom lag luam mus rau hauv chav ua khoom noj muag uas MDA txhawm rau tau txais kev tshuaj ntsuam kom tau daim ntawv tso cai, thaum npaj txhij. . Muaj ib daim ntawv teev cov chav ua khoom noj muag hauv Minnesota [nyob ntawm no](#).
3. Ua hauj lwm nrog lub chaw hauj lwm ua ntawv tso cai (hauv Minnesota, cov [Tus Neeg Sib Txuas Lus Txog Kev Ua Daim Ntawv Tso Cai Fab Khoom Noj MDA](#)) txhawm rau teem sij hawm tshuaj ntsuam kev tsim khoom – qhov no yuav suav nrog qhov chaw tsim khoom ntxiv rau koj daim ntawv lo qhia thiab cov ntaub ntawv teev txog kev tsim khoom.

Hauv kev tso muag cov khoom cia qaub mam noj thiab khaws cia tau ntev uas tsis tas tso hauv tub txias, ib txoj lag luam yuav tsum muaj tsab ntawv tso cai ua hauj lwm uas xa mus rau FDA thiab rau tus neeg tshuaj xyuas txhawm rau los tshawb xyuas. Yuav kom tau txais tsab ntawv no, koj yuav tsum yog tus neeg ua khoom cia qaub mam noj uas muaj daim ntawv tso cai. Nyob rau hauv Minnesota, muaj cov ntaub ntawv qhia meej tseeb ntawm no uas tuaj yeem saib tej lus qhia ntxaws los ntawm [lub chaw pab cuam Txhawb Nqa Kev Ua Liaj Ua Teb Ntawm Tsev Kawm Ntawv Txuj Siab MN](#) (lub vev xaib no yuav qhia koj txog cov kauj ruam uas yuav tsum ua kom tiav ua ntej koj thiaj li yuav tuaj yeem yuav dhau los ua tus neeg ua khoom cia qaub mam noj uas muaj daim ntawv tso cai).

Kauj Ruam Thib 1: Txhua tus "tus thawj saib xyuas kev ua hauj lwm," tus neeg uas nyob hauv qhov chaw tsim khoom thaum lub sij hawm tsim cov khoom cia qaub mam noj tau raug ua thiab muab ntim, yuav tsum tau txais daim ntawv pov thawj los ntawm lub khoos kas pab kev cob qhia uas raug cai. Lub vev xaib saum toj no muaj ntau txoj kev xaiv ntawm kev cob qhia, tab sis feem ntau nyiam xaiv kev kawm hauv Oos Lais Hauv Lub Xeeb NC kom ua tiav qhov kev xav tau no, nyob [ntawm no](#).

Kauj Ruam Thib 2: Ua ntej koj yuav ua los sis muag cov khoom, qhov txheej txheem kev tsim khoom yuav tsum tau txais kev pom zoo los ntawm cov neeg ua hauj lwm uas muaj kev tso cai (hauv Minnesota, koj tuaj yeem nrhiav tau cov neeg ua hauj lwm tsim khoom uas muaj kev raug cai [ntawm no](#), nyob rau hauv [Kauj Ruam Thib 2](#)).

Ua ntej koj yuav tau txais tsab ntawv tso cai ntawm cov txheej txheem tsim khoom, koj cov khoom yuav tsum muaj pH tsawg dua 4.6 (qhov pH sib npaug los sis qis dua 4.2 yuav yog qhov zoo dua, vim nws tsim nyob rau hauv qhov chaw uas muaj kev nyab xeeb) thiab raug muab ntim rau hauv cov hwj kub thiab huv si. Thaum ntim cov khoom kub rau hauv lub hwj kub lawm, yuav tsum tig sab hau rau mus rau sab hauv thiab tuav cia kom sov li ntawv yam tsawg kawg yog raws li lub sij hawm uas tau teev tseg. Daim Duab Thib 1 hauv qab no qhia txog kev sib haum zoo ntawm qhov kub txias thiab lub sij hawm tuav cia uas xav tau pH. [3]



Daim Duab Thib 1: Qhov sib cuam tshuam ntawm lub sij hawm thiab qhov kub txias rau cov txheej txheem ua rau kub hauv ob qho ncu ntawm pH. [3] Hauv kev siv, thaum xub yuav tsum tau xaiv daim ntawv qhia uas haum rau cov pH ntawm cov khoom tso. Tom qab ntawv, xaiv qhov kub txias raws li txoj kab X-Axis thiab nyeem mus kom txog rau txoj kab uas teev tseg txhawm rau nrhiav lub sij hawm ntxiv qhov tsawg kawg nkaus ntawm qhov kub txias ntawv hauv qhov ncu ntawm pH ntawv. Nco ntsoov tias kev teem lub sij hawm thiab qhov kub txias sib xyaw ua ke yuav tsum tau txais kev pom zoo los ntawm koj Tus Neeg Muaj Cai Tswj Qhov Txheej Txheem thiab tej zaum yuav sib txawv ntawm cov uas tau tshwm qhia nyob rau ntawm no.

Kauj Ruam Thib 3: Thaum koj tau txais daim ntawv tso cai ua tiav hlo lawm, ces xa daim ntawv txog qhov txheej txheem ntawm qhov kub txias mus rau FDA. [4,5]

Kauj Ruam Thib 4: Teeb tsa qhov kev tsim khoom ntawm koj chav ua khoom noj muag raws li koj tsab ntawv tso cai ua hauj lwm, suav nrog kev ntsuas thiab sau qhov ntsuas tus pH ntawm koj cov khoom thiab qhov kub txias ntawm lub hwj tas li (cov no hu ua qhov tswj tej teeb meem phom sij). Cov ntaub ntawv tswj tej teeb meem phom sij raug muab kaw cia rau hauv cov ntaub ntawv teev txog kev tsim khoom ua ntu-ua ntu los sis daim ntawv teev txog cov khoom ua ntu-ua ntu thiab khaws cia ua ib feem ntawm koj lub khoos kas pab cuam taug qab xyuas txog kev nyab xeeb ntawm tej khoom noj. [6] Koj tuaj yeem tshawb xyuas seb yuav ua li cas los tsim ib daim ntawv teev txog cov khoom, [nyob ntawm no](#).

Qhov zoo tshaj plaws ntawm cov khoom noj uas muaj cov kua qaub uas tuaj yeem muab khaws cia yam tsis tas tswj qhov kub txias los tau (hauv chav tsev kub txias). Txawm li cas los xij, cov txheej txheem no raug tswj hwm yam nruj heev los ntawm cov tub ceev xwm vim tias kev tswj hwm tsis zoo tuaj yeem ua rau muaj kev cuam tshuam txog kev nyab xeeb ntawm tej khoom noj loj heev uas yuav ua rau muaj cov kab mob sib kis rau hauv tej zaub mov qias neeg, xws li Clostridium Botulinum. Nws tau qhia kom los sab laj nrog cov neeg uas muaj kev paub dhau los thiab/los sis cov kws tshaj lij txog kev ntiag tug txhawm rau ua kom ntseeg tau tias koj cov khoom noj thiab koj cov neeg qhua muaj kev nyab xeeb.

COV NTAUB NTAWV POV THAWJ:

1. <https://extension.umn.edu/food-safety/food-processors>
2. <https://cals.cornell.edu/cornell-agritech/partners-institutes/cornell-food-venture-center/acid-acidified-foods>
3. https://foodsafety.wisc.edu/wp-content/uploads/sites/1026/2024/01/Developing_HotFill.pdf
4. <https://www.fda.gov/food/guidance-documents-regulatory-information-topic-food-and-dietary-supplements/acidified-low-acid-canned-foods-guidance-documents-regulatory-information>
5. <https://www.fda.gov/food/establishment-registration-process-filing-acidified-and-low-acid-canned-foods-lacf/establishment-registration-process-filing-acidified-and-low-acid-canned-foods-lacf-paper-submissions>
6. <https://iastate.pressbooks.pub/foodproductdevelopment/chapter/batch-sheets-for-scale-up>

Kev txhais lus rau phau ntawv no tau txais nyiaj txhawb los ntawm qhov kev pom zoo sib koom tes ntawm Resilient Food Systems Infrastructure, uas yog los ntawm U.S. Department of Agriculture (USDA) Agricultural Marketing Service. Cov ntsiab lus hauv no yog lub luag hauj lwm ntawm cov neeg sau nkaus xwb, thiab tej zaum yuav tsis sawv cev rau cov kev xav raws cai ntawm USDA.

Lub khoos kas AURI no ua tau ib feem los ntawm kev pab nyiaj txiag los ntawm USDA Lub Chaw Hauj Lwm Txog Tej Yam Tshiab ntawm Khoom Txhiam Laj Txhiam Xwm.
