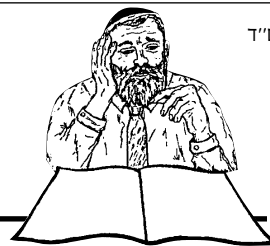


THE Daf HaKASHRUS



A MONTHLY NEWSLETTER FOR THE  RABBINIC FIELD REPRESENTATIVE

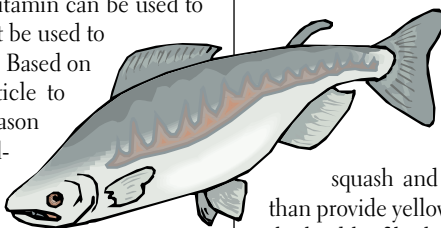
SALMON COLORED WITH ASTAXANTHIN

BY RABBI CHAIM GOLDBERG
RC - Fish Industry

of skin by which the fillet can be identified. The basis for this policy is that there is no fish² that has a reddish-pinkish flesh underneath its skin except salmon, trout and possibly some carp, which are all kosher fish (see below).

The recent use of an artificial vitamin supplement, designed to redden the flesh of farm-raised salmon, has raised a question about whether the Orthodox Union can continue to assume that all reddish-pinkish fish are kosher. If this vitamin can be used to redden the flesh of kosher fish, could it not be used to redden the flesh of non-kosher fish as well? Based on my research, I hope in the following article to explain why this worry is an insufficient reason to discontinue accepting reddish-pinkish fillets as kosher.

The basis for our policy of accepting all reddish-pinkish fillets as kosher comes from a *psak* that Rabbi Yisroel Belsky, Shlita, received from Rabbi Moshe Feinstein, *zt"l*, that a fish fillet with a reddish-pinkish color could be accepted as a *siman-muvhak* of kashrus, if one could be reasonably certain that no non-kosher reddish-pinkish fleshed fish exists in nature. Rabbi Belsky maintains that the matter has been sufficiently investigated and no non-kosher red-fleshed fish exists.³



Rabbi Feinstein's *psak*, however, could only apply to fish whose flesh are naturally red, such as wild salmon and trout. The flesh of the farmed varieties of these fish would (if not for supplementation) be a sickly pale-white. The reason for farmed salmon's natural absence of redness is a lack of **astaxanthin**, an anti-oxidant that wild salmon and trout absorb from their diet of lobster, shrimp, krill, plankton and algae. Farmed salmon's diet lacks the aforementioned delicacies, and must be fed an artificial astaxanthin, such as Carophyll-pink manufactured by Hoffman-La Roche, in order for them to mirror the color of wild fish. It is the color altering property of this nutrient that is causing concern in the kosher community. If astaxanthin can alter the color of the flesh of farmed salmon and trout, could it not alter the color of the flesh of non-kosher fish as well?

To answer this question, it is important for one to understand exactly what carotenes are. Astaxanthin (the primary carotene found in wild salmon) is in the same family as beta-carotene, the chief anti-oxidant (and principal pigment provider) found in carrots, apricots, squash and sweet potatoes. But carotenes do much more than provide yellow, orange or red color. Carotenes are essential to the health of both humans and fish as they also eliminate free radicals and oxygen singlets from the blood, enhance immune functions, act as anti-mutagens and anti-carcinogens and are a resource for the body's manufacture of Vitamin A. Excess carotenes, which the body does not need for maintaining life functions, are stored in different parts of the body in different creatures, depending on their genetic make-up. In salmon and trout, carotenes are stored in

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BRIGHT IDEAS

BY RABBI YITZCHOK GALLOR
RFR - Washington State

Dear Bright Ideas,

From the onset of technology which found factory personnel still washing equipment with rags and soapy water, to the present day state of the art CIP system, which enhances cleanliness of equipment prior to Kosherization, technology has continued to offer additional safeguards and enhancements for independent Kashruth verification. For example, computers very often run whole factories, requiring only one operator to monitor the entire system. In many cheese plants rennet is now automatically added during cheese production by computers. By close monitoring of the computer system, the Mashgiach is helped to ensure that following his push of the button introducing the Kosher rennet, (when this is

halachically permitted) other rennet is not subsequently introduced into the cheese production without his involvement.

Thermometers are also going through a transformation. They are becoming data recorders along with their traditional measuring function. In other words, if you are able to secure the thermometer in the pipe, pot, cooler, warming box, or oven, you can monitor a history of temperatures over an extended amount of time. One unit records up to 16,000 readings. There is also a unit that can be submerged into liquids. This unit can measure hot liquid product in the factory or in transit. A sudden spike or lowering of temperature will alert the RFR to a potential tampering of the seal and product.

What if the product is in transit in a refrigerated truck or tanker? There is a temperature recorder that will record information for up to 40 days. It records temperatures from below zero to a maximum of 80°F and is used to measure frozen or refrigerated products in

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SALMON

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the muscle tissue (i.e. flesh), making the flesh pink or red. (The skin on the other hand, in an Atlantic salmon for example, would retain a blue/silver color.)

Only fish such as salmon and trout retain natural carotenes in their reddish-pinkish flesh. Only fish that have the ability to store natural carotenes in their flesh can retain artificial carotenes, such as Hoffman-La Roche's astaxanthin "Carophyll-pink", in their flesh. Other fish are not red because they do not store carotenes whether natural or artificial in their flesh.

It is interesting to note that in humans, carotenes are stored (amongst other places) in skin (as opposed to flesh). That is the reason why eating excessive amounts of yellow-orange fruits can cause a person to develop a "jaundiced" look, and why astaxanthin is marketed for human consumption as the active ingredient in oral tanning pills (though it does have the undesirable side effect of causing one's perspiration to be orange). **Astaxanthin does not change the skin color of farmed salmon and trout, nor does it change the flesh color of humans or other fish.**

In conclusion, the OU Poskim maintain that red flesh is still a *siman muvhak* for a kosher fish, as only salmon and trout have a red or pink flesh¹, and that our policy of accepting reddish-pinkish fillets without skin is justified.

¹ Shulchan Aruch 83:1

² Though some small tropical fish have red flesh, they are not available for commercial consumption.

³ This is not an extension of the Beis Yosef's mesorah regarding red fish roe (see Shulchan Aruch 83:8 and Shach ad loc. #27) but is based on modern-day independent research about salmon fillets.

⁴ Rabbi Belsky was recently sent a sample of a "white" wild king salmon steak from British Columbia. He confirmed that even this was pink enough to clearly be a salmon, and that no other fish could be substituted even as a "white" salmon.

THE KASHRUS OF MEDICATIONS

Close to 350 men and women attended a jointly sponsored ASK OU - Hakhel seminar "The Kashrus of Medications" held on March 9th in Flatbush. Participants included Rabbonim, Rabbinic Administrators of Kashruth agencies, physicians, pharmacists and the concerned public. Presenters and their topics were Rabbi Yisroel Belsky, *Cough medicines, Vitamins and Other Over-the-counter Pharmaceuticals*; Rabbi Herschel Schachter, *Medication for the Ill and the Seriously Ill*; Rabbi

Dovid Cohen, *Special Guidelines for Medicine on Pesach*; Rabbi Dovid Heber, *Contemporary Issues in Year-round Prescription Medications*. The Shiur evoked great interest amongst the participants and the general public. Tapes of the seminar are available from Zalman Umlas at 718-252-5274. A video of the 2 hour and 40 minute seminar is available for \$12.95 a copy. To purchase please contact Avigail Klein at 212-613-8279 or email kleina@ou.org.

The *Daf HaKashrus* plans to publish Halachic Highlights of the presentations in future issues.



IDEAS

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transit. This unit is in a tamper proof paper box, with a duplicate bar code; one for you and one on the unit. For 40 days in transit, you can know the environmental temperature. No computer is needed for this unit, and it is cheap! This temperature recorder can help an RFR, besides the use of seals, in controlling for example that a shipment of Kosher grape juice was not substituted en route. The higher temperature change in the refrigerated tanker during the introduction of the non Kosher grape juice would be recorded by the thermometer.

Technology is such that lines can be traced through digital pictures simultaneously with the office, through E-mail. Rabbi Belsky said to me, "Too bad we can't see what the juice sees on its' journey." Well, plumbers and doctors use fiber optics and tiny video sensors to find obstructions in pipes or body cavities routinely. Soon we will be able to monitor the cleanliness of pipes and pasteurizers prior to kosherizations without the need of breaking down the equipment. The day is coming!

Thank you ר'π. Technology is a bright idea. Yitzchok Gallor

KASHRUTH alert!

TRADER JOE'S DRIED PITTED TART MONTMORENCY CHERRIES produced by Trader Joe's, So. Pasadena, CA bears an unauthorized ©P and is not certified by the Orthodox Union. Corrective action is being taken. Trader Joe's Dried Bing Cherries are certified as ©P.

BELLA CAFFE COFFEE DRINK - MOCHA MINT FLAVOR is produced by Bella Caffe LTD. - Lake Forest, CA. They distributed a case of this product bearing an unauthorized © symbol. Consumers spotting this product bearing the © symbol are requested to contact the Orthodox Union at 212-613-8248.

VERYFINE FRUIT2O ICE (assorted flavors) produced by Veryfine Products Inc, Littleton, MA and sold as a multipack, correctly bears an ©D symbol on the outer packaging. However, the individual cups lack the "D" designation. Corrective packaging is being implemented.

MAZAL TOV TO ...

RAV AND REB. YISROEL BELSKY on the engagement of their daughter Penina to Dovid Goldstein of Los Angeles, CA.

our dedicated RFR in Elizabeth, NJ **RABBI HILLEL ABRAHAM AND HIS WIFE** on the birth of their daughter Atara.

our devoted RFR in Washington State **RABBI YITZCHOK GALLOR AND HIS WIFE** on the engagement of their daughter Chavi to Akiva Gutniki from Queens, NY. Ms. Gallor is a secretary in the OU's Synagogue Services Dept.

our dedicated RFR in Sacramento, CA **RABBI ZALMAN THALER AND HIS WIFE** on the birth and Bris of their son, Menachem Mendel.

our devoted RFR in Israel and Japan **RABBI MORDECHAI KUBER AND HIS WIFE** on the birth of their daughter Gila Miriam.