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# CHALAV YISROEL MILK – AN INSIDE LOOK

A growing number of people today are careful to only consume dairy products that are chalav Yisroel. This means that the milk production is carefully overseen beyond usual hashgachah for standard chalav stam. But how does that process work? Where does the Mashgiach begin, and where do his responsibilities end? Here's a behind-the-scenes look at the process.

## INTRODUCTION

It is well-known that Rav Moshe Feinstein zt"l permitted the consumption of milk produced in the United States even without the direct oversight of a Mashgiach during the milking process. This milk, referred colloquially as *chalav stam*, is generally accepted as kosher, but many people look for milk produced under the direct oversight of a *Mashgiach*, known as *chalav Yisroel*. This article will describe the necessary procedures a *hashgachah* must follow in order to successfully oversee *chalav Yisroel* milk production, beginning from the milking of the cow and ending with the sealing of the container of milk at the factory. The descriptions of how a farm and dairy plant operate will be based on current conditions in the United States.

There are two stages of this *hashgachah*: a) on the farm, and b) at the dairy processing facility. Before describing the *hashgachah* that is necessary, let us briefly explain what takes place at the farm and at the dairy processing facility. The set-up of the dairy industry today is such that there are many dairy farms (henceforth "the farm") supplying each dairy processing facility (henceforth "the dairy"). It is possible for a dairy to be receiving milk from a hundred separate farms in its surrounding area. Farms can be small or large, housing from about one hundred to a few thousand cows. They are almost always independent farms, not owned by the dairy. When a cow is milked at the farm, the fresh milk is at the



cow's body temperature of about 100°F; it is then chilled down to about 38°F. That is the extent of the processing done at the farm; the milk is considered "raw" milk, and it is usually not legal to sell it at this point, prior to pasteurization. The farm amasses enough milk to load up a tanker truck (this can take several hours or more than a day depending on the number of cows), at which point it is loaded onto a tanker truck and delivered to the dairy. Upon arriving at the dairy, it will be pumped into one or several silos (tall, round, stainless steel tanks). When the dairy is ready to process the milk, the milk will be pasteurized, separated (all fat removed and put back in at the desired fat level, whether full, 2%, 1% etc.) homogenized, have vitamins added, be chilled down and then bottled. The finished bottles are refrigerated and delivered within a day or two to stores.

## AT THE FARM

Let us begin with the *hashgachah* at the farm level. When the *Mashgiach* arrives at the farm, his first task is to check that the entire line, i.e. beginning from "the milkers," which are the four-pronged devices attached to the cows' udders, all the way to the tank the milk will be collected in, is clean from previous non-*chalav Yisroel* milk residue. This is accomplished by visual inspection. There is usually no problem in this area, as farms have a good washing system that thoroughly cleans the entire line. The tanker truck that the milk will be pumped into also needs to be checked. This is accomplished by opening the outlet valve at the back of the truck, which is the lowest point of the truck, and seeing that the wash water the truck has been cleaned with emerges without milk residue. The milking can now begin, and the *Mashgiach* needs to remain on the premises, making random checks at various parts along the entire length of the line, from the cows in the milking area up to the holding tank (the line can have various

parts and smaller tanks along the way, going through several rooms and even floors). The *Mashgiach* can rest, and he obviously needs to *daven* and even nap, but he must be very careful not to establish any fixed pattern to the point that the farm personnel will be confident that the *Mashgiach* will not be appearing for even a short amount of time, and thereby undermine the basis of *chalav Yisroel*. The farm personnel should also be aware of the *Mashgiach's* role to ascertain that no non-kosher species is used, so that a *mirsas*, (fear of being caught) will be created. This will work for when the *Mashgiach* is not literally standing at the milking (e.g. he is davening or resting), since he can pop in at any moment. When the milking is done, the milk will be pumped into a tanker truck. (On larger farms the milking is piped directly into a waiting tanker truck parked on the premises.) The *Mashgiach* will seal the tanker truck, so that no milk can be added without breaking the seal. The tanker truck will now be driven to the dairy for processing there.

Before turning our attention to the dairy, let us discuss some *halachic* issues that can arise at the farm.

## DA COWS

Milking cows may develop a condition called displaced abomasum (DA), wherein the cow's abomasum (true stomach), the *keivah*, falls or gets twisted out of place. This more frequently occurs soon after the cow has calved (given birth), because the abomasum falls into the cavity that previously contained the fetus.

A number of years ago it was discovered that a common way to resolve DA is by puncturing the abomasum of the cow. This remedy (of puncturing the *keivah*) presents a serious *sh'eilah* of a *tereifah*. When this issue developed, the *hashgachos* looked into the matter, and virtually all *hashgachos* that certified *chalav stam* milk, ruled that it was permitted to continue to do so as before for *chalav stam*; however, when certifying milk as *chalav Yisroel* these same *hashgachos* ruled that it was necessary to be *machmir* and prevent all such cows from being milked and contributing to the amassed milk. A complete analysis of the DA issue is beyond the scope of this article, but the reason for this distinction is briefly as follows: One of the *heterim* for the DA problem in *chalav stam* is the simple rule of *rov beheimos kesheiros*, i.e. we know some animals may be *tereifos* because of *sirchos* (adhesions to the lungs) and other possible *tereifos*, but since we know *rov* of the animals are not *tereifah*, when it comes to each individual cow that is milked, we follow the *rov* that the milk is kosher. We further follow this same *rov* and may drink the pool of many such cows at once (despite the fact that statistically speaking it is highly unlikely that there is *bitul* of the milk of the *tereif*



Cow with displaced abomasum scar

*fah* cows in the pool of the many)<sup>1</sup>. This concept can apply to *chalav stam*, since we have no presence and knowledge of the goings-on at the farm. (While the farmers have records of which cows underwent DA procedures, they would not be willing to divulge this information to us as it can only hurt them.) For *chalav Yisroel* however, where we do have a significant presence at the farm, it is much more difficult to make that argument. As a result, all reliable *hechsherim* require the farm to have a system of ensuring that all DA cows are prevented from contributing to the *chalav Yisroel* certified milk. While this issue in itself has nothing whatsoever to do with the *din* of *chalav Yisroel*, in practice it adds an additional layer of difficulty to the *hashgachah* of *chalav Yisroel*. It also makes it more difficult to convince a farm to become involved in *chalav Yisroel* to begin with, and as a result the farmer will require a premium to be paid for his milk. So an additional task for the *Mashgiach* at the farm is to verify and maintain the system in place for ensuring that the DA cows are not contributing to the milk pool. Such systems usually involve using the farm's existing record system, whereby every cow has a clearly visible numbered tag attached to it (on the ear), and the farm files complete records of the cow's lifecycle under that number. Additionally, different color bands can be placed on the cow's legs and kept there for however long is necessary, to mark it for various purposes, e.g. a color can be assigned for DA cows. In addition, the fact that the scars of a DA surgery are visible externally on the cow for several months, and much longer to the expert eye, creates a *mirsas*, as the *Mashgiach* can spot a DA cow that is being milked.

## YOTZEI VENICHNAS

Ideally the *Mashgiach* should remain on the farm throughout the entire milking until the tanker truck is sealed. However, practically doing so can be difficult and costly. For example, if

the farm does not have many head of cattle, it will be necessary to get milk from several farms that are milking simultaneously, and hiring a separate *Mashgiach* for each farm would raise the cost of the *chalav Yisroel* milk to a prohibitive level. The *hashgachah* will then have one *Mashgiach* circulate several farms randomly, at a *yotzei venichnas* level, as the *halachah* is that the *Mashgiach* does not need to be there for the entire milking, and *yotzei venichnas* is sufficient. However, the definition of this *yotzei venichnas* is not the same as the commonly used term, as in this case the *Mashgiach* literally must be able to pop in at a moment's notice<sup>2</sup>. Great care on the part of the *hashgachah* and *yiras Shamayim* on the part of the *Mashgiach* are both necessary to ensure that workers on a specific farm never know that the *Mashgiach* will **definitely** be gone for a specific amount of time. A seemingly harmless statement on the *Mashgiach's* part revealing that he is leaving to fill up on gas, or to go to farm so-and-so can compromise the *chalav Yisroel* status. Another possible issue arises if after the *Mashgiach* leaves a specific farm he has **never** doubled back a few minutes later, because the workers would soon grow confident that once he left, he is gone for at least a while. If the personnel on one farm know the personnel on another farm and can easily call one another to share the current whereabouts of the *Mashgiach* (and it takes several minutes to get from one to the other), there can also be a problem. Similarly problematic is a farm that is situated on a hill, so that any approaching person or vehicle can be seen well before their arrival. In these cases, to alleviate some of these concerns, it is a good idea to have a second roving *Mashgiach* (who does not need to be employed full-time) that can (and does) pop in sometimes.



## CAMERAS

One modern application of *chalav Yisroel* is the question of whether video cameras would suffice to be considered “milked in the presence of a Jew,” conferring the status of *chalav Yisroel* on the milk. It is reliably reported that Rav Elyashiv zt”l permitted this scenario, but only via a live video connection, and not through recorded video.<sup>3</sup> This author understands that to mean that there must be a live video connection, so that a *Mashgiach* has the ability to view the entire milking live in real time throughout the milking process, and that the farm personnel are aware of this, but not that the *Mashgiach* actually has to be watching the entire milking. This is similar to when the *Mashgiach* is actually present on the farm; he does not need to witness all the milking, as the fact that he is on the premises and can at any moment be on the scene of the milking, is sufficient. Even when cameras are present, the *Mashgiach*

would need to be there after the milking to seal the tanker before it leaves the farm and moves out of the camera's range. It is likely also necessary for the *Mashgiach* to be there prior to the start of milking to verify that all the tanks and lines, as well as the tanker truck, are empty and clean, though it may theoretically be possible to accomplish this inspection by camera as well. There are some potential pitfalls to using cameras, however: a) The cameras must be strategically placed, and there must be enough of them to cover the entire length of the line from the cows that are being milked to the tank being filled, to preclude the possibility of the non-Jew breaking into the line out of the cameras' range and pumping in non-kosher milk.<sup>4</sup> b) Despite the amazing capabilities of modern technology, the connections to remote cameras are subject to frequent problems and failure, and were that to happen in the middle of milking, and the farm personnel were aware of this failure, the *chalav Yisroel* status of the milk could be lost. Worse, if the farm was aware of an equipment failure and the *Mashgiach* was not, the milk would be sold as *chalav Yisroel*, and it actually would not be. This author is not aware of cameras currently being used to create *chalav Yisroel* anywhere in the United States, and it seems that this would be a downgrade of the current level of *kashrus* of *chalav Yisroel* milk. It may be a good idea, though, to use cameras *lechumra*: for example, if a *hashgachah* was using *yotzei venichnas* as outlined above, to add cameras in addition to the *yotzei venichnas*.

## KOVUSH

Although a transfer of *blios* from a *keli* to food and vice-versa usually only occurs when there is heat involved, if a liquid is held in a container (or tank) for 24 consecutive hours, there is a transfer of *blios* at any temperature. This is known as *kovush*. This issue comes up in connection with *chalav Yisroel* if the milk has to be held in a tank, or tanker truck for more than 24 hours, as it is very likely that the same tank has become non-kosher from previously held (for 24 consecutive hours) non-*chalav Yisroel* milk. Although there are many people who only eat *chalav Yisroel* but are *meikel* on *keilim* of *chalav stam*, others are not *meikel*, and the *hechsherim* therefore treat *keilim* of non-*chalav Yisroel* to be considered non-kosher *keilim* when it comes to *chalav Yisroel*. This issue does come up frequently, as the milk industry in general requires a great deal of logistics, with constant pickup by tanker trucks from farms, and deliveries of these loads to dairies, trying to maximize space and time at the farms, dairies and on the trucks, while conserving fuel and driver labor. It is further compounded during *chalav Yisroel* production, as at every point it needs to be kept separate from all the other non-*chalav*

Yisroel milk. So, it often happens that the milk will need to be held in a tank or tanker truck for 24 consecutive hours; sometimes only some of the milk in a tank will be there for 24 hours, sometimes all of the milk will be there for 24 hours. (Logistically, as the cows are being milked into a tank, the milk from the first cows will be in the tank longer than the milk from the last cows.) Many *hechsherim* will allow this to happen when the necessity arises and will accept the milk as *chalav Yisroel* for the following reasons: a) the metal of the tank<sup>5</sup> is *batel b'shishim* to the volume of milk in the tank, as the tanks are very large with thin metal walls, b) the *Chavos Daas*<sup>6</sup> and *Yad Yehuda*<sup>7</sup> hold that we do not hold *kovush* in metal, and certainly the stainless steel tanks currently in use qualify for this, and c) *b'dieved*, it is certainly *mutar* since the *blios* start coming out of the tank after 24 hours of *kovush*, so the tank is always *aino ben yomo*. Furthermore, since the farm owned by non-Jews is doing the *kevishah* and would usually do so anyway with or without the request of the Jewish company purchasing the *chalav Yisroel* milk, it may be *mutar l'chatchilah*. Some *hechsherim* will require the milk to be pumped out to another tank, if possible, prior to 24 hours to avoid *kovush* or to create a loop and pump back into the same tank.<sup>8</sup>

## AT THE DAIRY

Let us describe *hashgachah* at the dairy. As mentioned before, the tanker truck is sealed by the *Mashgiach* at the farm. The same *Mashgiach* can drive over to the dairy, or there can be another *Mashgiach* there to receive the tanker. The *Mashgiach* at the farm will relay the numbers on the seal to the *Mashgiach* at the dairy, and these numbers will be checked prior to unloading the tanker. The dairy must have an empty silo to receive this milk if it will not be processed straight off the tanker truck. Prior to processing the milk, the equipment at the dairy must be *kashered*. Often the only reason the equipment needs *kashering* is from the non-*chalav Yisroel* milk run on the equipment previously, which is treated as non-kosher in regards to *chalav Yisroel*. *Kashering* is necessary, since the milk is heated during pasteurization. The pasteurizer and related equipment of the separator, homogenizer, and connected piping are *kashered* together as a closed system. After pasteurization there is cooling equipment which chills the milk. After being chilled, the milk then exits the pasteurizer and is pumped to fillers which will fill the milk into the desired container size. From the cooling section forward, *kashering* is not required. Vitamins are added to the milk during pasteurization. While these vitamins are *batel* by far, in practice they are required by *hashgachos* to be kosher. The labels are affixed to the finished milk container, or there

are preprinted cartons. The labels or cartons that bear the *hechsher* are under the control of the *Mashgiach*, and are given to the dairy to be used as needed. Those that were not used are removed or otherwise secured by the *Mashgiach*. And finally, the finished milk containers are ready to be delivered to stores where the consumers are anxiously awaiting their *cholov Yisroel* milk.

## CONCLUSION

Today, *chalav Yisroel* foods in the U.S. range from milk to cheese, ice cream, and a wide variety of dairy products. The cRc takes special pride in our supervision of *cholov Yisroel* products, and the words “*chalav Yisroel*” on a label means that the processes described above were applied. Discerning consumers can enjoy the many dairy delights available to them and rest assured that every step of the process is carefully supervised on every level – from the cow on the farm to the sealed container of milk at the dairy and beyond. ▲

## ENDNOTES

- 1 This author has calculated the statistical likelihood that there is *bitul* of the milk of the tereifah cows in the milk pool, assuming the accepted ratio of 10% tereifah cows, to be less than 1 in 500.
- 2 The *shiur* of a “moment’s notice” i.e. the time from when the farm personnel become aware the *Mashgiach* is approaching until the time he actually is on the scene, would presumably not be just the time it would take for someone to drive up to the farm and unload some non-kosher animals, milk them, and then remove them, which could take some time. Rather it should be the time for someone to drive up with a container, e.g. a barrel, of non-kosher milk, empty it into the tank of milk, and remove the barrel.
- 3 The argument likely is that live video is a fulfillment of the requirement of *Chazal* of seeing the milking, despite not really seeing it in flesh and blood, as opposed to having a video recording for later viewing, which would be considered another sort of proof, which is not valid according to those that do not agree with the *heter* of Rav Moshe.
- 4 It can be argued that it is only necessary to view the line at points where there are bends in the line and the pipes can be disconnected and put back together without leaving a trace, but in areas of straight pipe, there is no realistic *chashash* that the non-Jew would break or saw the pipes in middle of milking. Even if this was done, there would be evidence of such activity, which would be seen by the *Mashgiach* that came after the milking to seal the tanker.
- 5 This is true in tanker trucks as well, provided that we do not count the parts of the truck that are welded to the tanker only indirectly. The calculation regarding this is beyond the scope of this article.
- 6 *Chiddushim* 105:3.
- 7 פירוש הַקְצָר, 105:4 and פירוש הַקְצָר, 105:1
- 8 When pumping back to the same tank, it is not possible to be certain that every drop of milk exited the tank and went through the pump, but assuming the milk mixes uniformly we can calculate how long it would take for likely all of it to exit, and according to some *poskim* it is sufficient that *rov* of it, exited.