As we approach the summer months, the cool refreshing taste of ice cream is something which often comes to mind. What are the kashrus concerns when certifying an ice cream manufacturing plant? Ice cream was traditionally considered a straightforward product consisting of fresh cream, sugar with added vanilla beans or cocoa. However, as with most commercial food production, nothing is simple anymore. This article will give a little glimpse into the unique world of ice cream production which takes place in Paducah, KY, home of the international headquarters of Dippin’ Dots, certified kosher by the Vaad Hoeir of St. Louis.

The first ingredient in any dairy ice cream is, you guessed it, cream. Cream is the fatty portion of milk, referred to in the dairy industry as “sweet cream.” Although sweet cream in the USA is inherently kosher1, the facility pasteurizing the cream needs to be kosher certified to ensure there is no cross-contamination with other liquid products. Additionally, the liquid tanker delivering the cream to the facility needs to be a tanker dedicated to hauling only kosher approved products. All this is verified by the mashgiach by reviewing the detailed paperwork the company must keep as it monitors all the incoming products.

The next component included in modern ice cream production is non-fat dry milk. This is typically added to lower the fat content of ice cream to the desired level. Milk in its powdered form requires kosher certification, as it is dried from a liquid to a powder in a spray-dryer. The spray-dryer is a very expensive piece of machinery that is often used for a variety of products, i.e., fruit juices, chicken fat and oils to turn them into powdered form. Therefore, the powdered milk requires proper kosher supervision to ensure...
that the spray-dryer was kashered before being used for milk. Once the dairy component of the ice cream is squared away, the next ingredients to be added are the sweeteners and flavors. These also require kosher supervision, to ensure that all the flavors are from kosher approved sources. In a large facility such as Dippin’ Dots (where they can produce 2 billion dots per day!), the liquid sweeteners are brought in via truck on liquid tankers. As mentioned above, the visiting mashgiach needs to verify the hauling information to ensure that the tankers transporting the liquid sweeteners are dedicated to hauling kosher product only.

As the flavors and the sweeteners are mixing with the dairy components, stabilizers are added to help develop the texture of the finished product. Some common stabilizers used in commercial food production are locust bean gum, carrageenan gum and xanthan gum. All of these gums are readily available with kosher supervision. However, the mashgiach must be on the lookout for any gelatin-based gum products which are commonly used in the industry but would adversely affect the kashrus of the finished product.

Lastly, the ice cream requires emulsifiers to help keep the ingredients blended so the finished product has a smooth and soft mouthfeel when consumed. Emulsifiers are often composed of mono- and diglycerides which may use a blend of animal fats and vegetable oils. Such products require tight kosher supervision to ensure no cross contamination.

The uniqueness of Dippin’ Dots is in the process they use to develop the ice cream into super cold pellets. While freezer temperature for typical ice cream is around 0°F, Dippin’ Dots ice cream needs to be kept at -40°F! To accomplish such a feat, at the time of production, a custom designed machine drops small amounts of the ice cream liquid into liquid nitrogen at a temperature of -320°F, instantly freezing them cryogenically. Since liquid nitrogen is so cold, the droplets freeze super-fast and stay in that nice little BB-sized shape. The dots are then packed into special plastic bags that can withstand sub-freezing temperatures. The Dippin’ Dots freezers need to maintain these subzero temperatures to maintain the product. If Dippin’ Dots were stored in a regular freezer, they would lose their unique small shape (they will melt!).

A question that is often posed to the Vaad office is, “Can I purchase Dippin’ Dots at the various theme parks throughout the USA?” The set-up is typically a free-standing cart selling product out of a large bin containing the beaded ice cream. The Vaad does not certify any of the individual carts selling the Dippin’ Dots. However, all Dippin’ Dots ice cream and ices products sold in the USA are produced in Paducah, KY, and are under the Vaad’s kosher supervision. Therefore, if one can verify
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the original kosher marked Dippin’ Dots packaging, then the item is authentic and acceptable for purchase. Just ask the vendor to show you the original bags the ice cream came in. Additionally, there are many convenience stores throughout the country which sell individually packed Dippin’ Dots products in special freezers, marked with our hechsher.

One last point before indulging into the ice cream of the future. As with all food consumption a conscientious kosher consumer needs to know the proper bracha to recite before and after consuming the product. In the case of Dippin’ Dots the bracha recited before-hand is a shehakol. The after-bracha is not as simple. Although typically after consuming a food which requires a shehakol a borei nefashos is said, in the case of ice cream it is not necessarily correct. Many Poskim rule that frozen liquids are to be considered as solids for purposes of a brachah acharona, and one could therefore recite a Borei Nefashos after eating only a k’zayis (a little more than one fluid ounce) within four minutes. Other authorities, however, rule that one does not recite a brachah acharona on frozen liquids since they are still considered liquid, and it would be virtually impossible for one to eat enough ice cream within the amount of time that would obligate a brachah acharona for liquids (over three fluid ounces within about thirty seconds). The Poskim therefore recommend that one drink some liquid before or after eating the ice cream to avoid this concern.

1 Chalav stam as per Shu”t Igeros Moshe YD 1:47-49
2 See Sefer V’Zos HaBracha chapter 5
**Question:** I am looking into investing in a livestock ranch and would like to know if there are any halachic considerations I need to be aware of before investing? To clarify, the way the investment works is as follows. The ranch owner seeks capital from clients to purchase young bulls. He then continues to raise them until they have developed into steer suitable for slaughter (non-kosher). Each investor “purchases” a number of young bulls and the farmer raises them. The return on the investment depends on how much they will sell for at maturity.

**Answer:** Numerous halachic issues need to be considered with such an investment. I will outline them briefly.

1. There is a general prohibition to castrate any living creature. Bulls sold in the USA are typically castrated (subsequently referred to as steer) as by doing so the animals meat has a more consistent quality suitable to consumers. If this procedure is administered before your farmer purchases the young bulls, then there is no halachic concern. If, however the castration will take place after the animal is already yours, then a more detailed discussion will be necessary to avoid this prohibition.

2. A bechor bull born to a Jewish farmer would have halachic ramifications as it is forbidden to get benefit from it nowadays. Since in your scenario the animal was born while it still belonged to a gentile, even if it is a first born, there is no sanctity, and one may derive benefit from it.

3. As these animals are not suited for working in the fields, there is no concern of your animal doing melacha on the ranch on Shabbos. Additionally, although one cannot have his animal carry anything on Shabbos in an area where there is not an eiruv, the tag inserted into the ear lobe of the animal for identification purposes is not considered carrying.

4. Although if the animal would be living in your backyard there would be a prohibition of feeding it chametz on Pesach, if the animal is living on the ranch with the gentile farmer, there is no prohibition of him feeding it chametz.

5. The Gemara discusses a prohibition of selling livestock to gentiles, which would therefore seem to limit to whom you should be able to sell the Steer upon maturation. However, the Poskim discuss how the reasons mentioned in the Gemara are not applicable in many cases, and therefore would not restrict the sale of your steer.

This concludes a brief overview of what halachic considerations apply to buying stock in livestock. As a reminder, the Vaad Hoeir oversees numerous local charitable distributions throughout the year which would benefit from your investments as well.

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1. Shulchan Aruch EH 5:11-14
2. Shulchan Aruch YD 306
3. See Shulchan Aruch YD 320:3,6
4. Shmiras Shabbos Khilchas 27:9
5. Mishnah Brurah 448:31
6. Avodah Zarah 14a-15a
7. See Shulchan Aruch YD 151:4 with Shach 12, adding to the fact that they are being sold for slaughter and not for labor.