



REFRIGERATION REVIEW

Tomato Ripening

Today, most everyone gets tomatoes ripened "crown pink" as opposed to "greens." If tomatoes are bought green, they vary on a scale of 1 to 9, with 1 being green, 3 having a star on top, 5 being pink, and 8 to 9 being red.

If they are bought green, tomatoes are normally stored at 54° to 55°. If they are a 5 (pink) and you need them in a week to be at, say, a 7, you can carefully put them in a 68° to 75° room and watch them. It is best to put them in small, airtight rooms and check the level of ethylene. If they are starved of oxygen too long, they will tend to turn yellow. Occasionally during the ripening process, the room may need to be aired out and resealed.

A typical Wendy's fast food restaurant in Puerto Rico might use 700 to 800 25-pound boxes of tomatoes a day. To ripen green tomatoes would normally take 10 days to three weeks at elevated temperatures. If you go much higher than 68° the tomatoes tend to get soft and will activate spoiling.

Industrial Refrigeration in the Heart of Russia

We had the opportunity to make visits to Russia and see firsthand what the refrigeration industry provides for perishable storage distribution. In addition to refrigerated facilities, refrigeration compressor manufacturing plants were visited. Having been a professional curiosity of Hank's, the trip was indeed a rewarding experience, and one that was provided deep appreciation of advancement in a country without free enterprise incentives. In this brief article we will try to give you one descriptive snapshot of a major refrigerated facility.

One town we visited had a population of 700,000 people, Ten years earlier, it had had a population of 30,000. The "man made" town's focus was a large truck factory (the largest in the world at that time). The town has a refrigerated storage facility which also serves the needs of an ice cream manufacturing facility (ice cream cones).

The facility, approximately 2 million cubic feet, had some unusual amenities, such as a barber shop, a dentist, an obstetrician, and a small shop for employees. The loading docks were open, with multi-story refrigerated areas that were four stories in height, and included a basement story level similar to facilities in older metropolitan areas such as those built in Jersey City, Philadelphia, and Chicago from 1910 to the 1940s.

The refrigeration equipment, particularly compressors, was very similar to those manufactured in the United States. Many of the exotic features, such as thermosyphon, were not present, but the efficiency would be on a par with the United States. The absence of fan-driven air units was noteworthy, although the condensers were similar (except for the use of fin coils). Generally, perishable products consisted of bulk storage of raw materials. Very little "packaging" material was available, and poultry was frozen in open crates similar to plants in the United States in the 1950s. Usually, one year's supply is kept on hand for ice cream. Based on observation, even in metropolitan areas, 70 to 80 percent of the food consumption would be "fresh" or freshly processed, or canned.