COMMERCIAL YEAST PRODUCTION

Yeast is produced by a controlled aerobic fermentation (growth with air) where yeast biomass – and not alcohol – is the result. Pure strains of the “mother” culture are maintained in the laboratory and then transferred to the plant process, where they are grown in a nitrogen-enriched sugar medium, fortified with vitamins and minerals for optimum cell activity. After the appropriate number of generations, the mature cell mass is separated from the spent liquid, then delivered as liquid cream yeast, filtered and sold as compressed yeast or filtered and dried into instant dry yeast. Another process step is autolysis (self-digestion) of the yeast cells to liberate the cell nutrients. The autolyzate can be simply dried or it can be treated to produce a fully soluble yeast extract.

COMMERCIAL BACTERIA PRODUCTION

Bacteria are cultivated in fully aseptic conditions. Bacterial cell biomass inoculum is prepared in the laboratory and then transferred to industrial fermenters. Parameters of fermentation (pH, temperature and aeration) may vary depending on the yeast strains used. Several different growth media can be used and are, in some cases, dairy-based. After growth, the cells are harvested through centrifugation, then either frozen or lyophilized for package and sale. Dry bacteria can be sold as a bulk powder or in dosage form (capsule or sachet).
YEAST PLANTS

In North America:
- Montréal, Québec (Préfontaine plant)
  - Fresh bakers yeast and distilling yeast
  - Dry bakers and specialty yeasts
  - Bulk for inactive yeast
- Baltimore, Maryland
- Memphis, Tennessee
  - Fresh bakers yeast
- Rhinelander, Wisconsin
  - Inactive dry yeast (Torula)

In Europe:
- Vienna, Austria
  - Fresh bakers yeasts
  - Dry bakers and specialty yeasts
  - Microencapsulation of yeast and bacteria
  - Schwarzenbach and Passau, Germany
    - Fresh bakers yeast
  - Salutaguse (near Tallinn), Estonia
    - Fresh bakers yeast, inactive dry yeast
    - Dry specialty yeast
- Lahti, Finland
  - Fresh bakers yeast
- Grenaa, Denmark
  - Fresh and dry bakers yeasts
  - Dry specialty yeast (oenology)
  - Yeast autolyses and extracts
- Trenčín, Slovakia
  - Fresh bakers yeast (packaging)
- Josefow, Poland
  - Fresh bakers yeast
- Setúbal, Portugal
  - Fresh and dry bakers yeasts
- Felixstowe, United Kingdom
  - Fresh bakers yeasts
  - Dry bakers yeasts
  - Distilling yeasts

In Africa:
- Durban, South Africa
  - Fresh and dry bakers yeast
- Johannesburg, South Africa
  - Dry bakers yeasts
  - Dry specialty yeasts

In Europe:
- Aurillac, France
  - Especially for human nutrition and pharmaceutical applications
- Malvern, UK
  - Especially for animal nutrition applications
- Vienna, Austria
  - Microencapsulated bacteria

BACTERIA PLANTS

In North America:
- Montréal, Quebec (Institut Rosell plant)
- Mirabel, Quebec (Harmonium)
  - Especially for human nutrition applications
- Quebec City, Quebec (Perfectlab)
  - Packaging plant
- Milwaukee, Wisconsin
  - Especially for animal nutrition applications

In Europe:
- Aurillac, France
  - Especially for human nutrition and pharmaceutical applications
- Malvern, UK
  - Especially for animal nutrition applications
- Vienna, Austria
  - Microencapsulated bacteria

OTHER PLANTS

In North America:
- Montréal, Quebec (Macco Organiques)
  - Organic acid salts
- Cuautitlán, Mexico
  - Baking powder and dough conditioners
- Bakersfield, California
  - Warehouse, standardization and distribution centre for cream yeast

In South America:
- Goiás, Brazil (Katec)
  - Blends for silage and ruminant farmpacks

In Europe:
- Burton-upon-Trent, U.K.
  - Brewing ingredients
- Bruntál, Czech Republic (Macco s.r.o.)
  - Organic acid salts
- Fredericia, Denmark
  - Dry yeast packaging and warehousing
- Panevėžys, Lithuania
  - Distribution centre
- Krakow, Poland
  - Distribution centre

OTHER SITES

Sales offices and/or sales representatives in the above-mentioned countries, as well as

In South America:
- Argentina, Chile

In Asia-Pacific:
- Australia, New Zealand, China, Japan, India, Malaysia

In Europe:
- Croatia, Spain, Iceland, Italy, Lithuania, Netherlands, Romania, Switzerland, Serbia

Plus various distribution centres in many of the above countries.