

# Vegetable growing

Pawel Karpinski

Zuromin, Poland

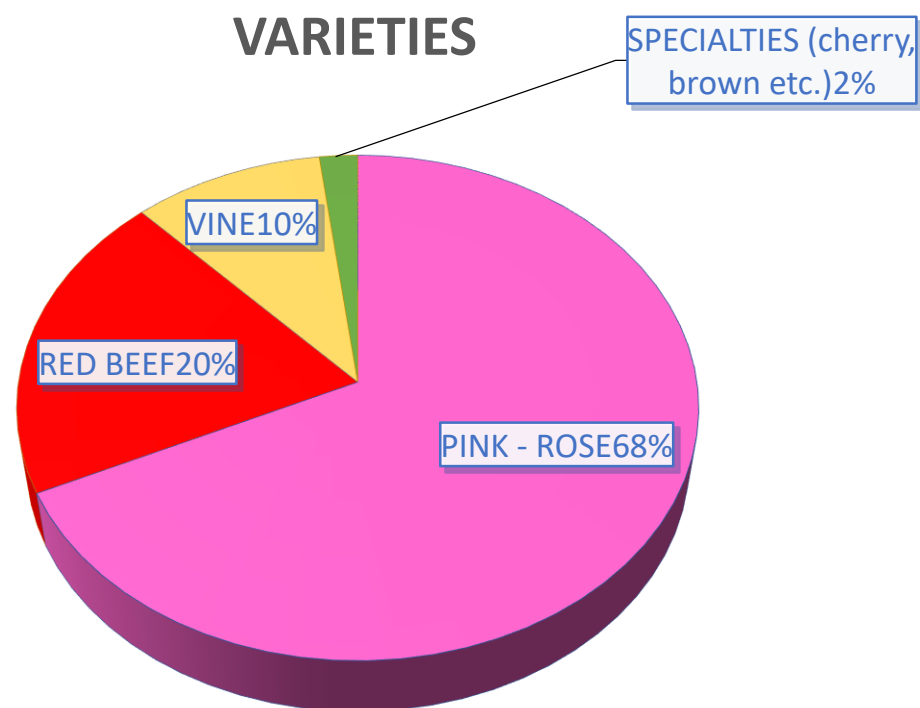
# Greenhouses production In Poland

- ▶ tomato - total 2500 ha - in venlo greenhouses -1200 ha, 70 ha with assimilation lighting
- ▶ cucumber - total 1200 ha - in greenhouses 400 ha, around 4-5 ha with assimilation lighting

# Greenhouses production In Poland

- ▶ most of them are fairly new venlo greenhouses, 4.5-6 m high
- ▶ most is heated with coal
- ▶ generally well-equipped facilities, screening installation, climat computers, fans,
- ▶ older buildings for production of cucumbers

# Greenhouses production In Poland - tomato



# Greenhouses production In Poland - tomato

- ▶ production terms
- ▶ start of production
  - with artificial light 28 - 38 week
  - without artificial light - 51 - 8 even 12 week (at older facilities)
- ▶ end of production
  - with lamps 25 - 28 week
  - without lamps 42 - 48 week

# History of production on my company

- ▶ my father started producing tomatoes in 1980
- ▶ I started producing my own in 2000 - 0,20 ha
- ▶ in 2001-2011 - greenhouses were built with a total area of 3.5 ha
- ▶ in 2017, we start a new investment - 0.60 ha lettuce production



Now total production - 3,5 ha tomato, 2ha lettuce hydroponic production

# Tomato - my production

- ▶ Total 3,5 ha
- ▶ structure of production
  - 2 ha pink/ rose tomato
  - 1 ha red beef tomat
  - 0,5 ha cherry, romaine, cour de beef
- why different varieties ?





# Tomato - my strategy

from seeds to harvest

- ▶ the optimal time for sowing and planting
- ▶ 100% plants health
- ▶ the plants is on time
- ▶ the plants are in place
- ▶ lower cost than purchased
- ▶ use of greenhouses all year round
- ▶ an additional benefit for employers - permanent employment
- ▶ minus the greenhouse must be additionally equipped





# Tomato - production

- ▶ two planting dates - around 15 december in newer greenhouse, around 15 january in older greenhouse
- ▶ yield:
  - pink - 49-50 kg/m<sup>2</sup>
  - beef - 54-57kg/ m<sup>2</sup>



# Tomato - greenhouse equipment

- ▶ screening installation
- ▶ climat/ irrigation computer
- ▶ three heating system on greenhouse
- ▶ UV recycling system
- ▶ hanging gutters
- ▶ Heating from coal



# Which limits the development of tomato production in my company

- ▶ very strong competition in the tomato market
- ▶ small area (3.5ha)
- ▶ high customer expectations
- ▶ wide range of products
- ▶ searching for new types of varieties

# Second part of production - Lettuce hydroponic production on gutter system

- ▶ total area production 2 ha - next year extension by 0,7 ha
- ▶ production volume 6,5 mln pcs



# Lettuce - MGS - Mobile Gully System

- ▶ very high production /m<sup>2</sup>
- ▶ new product for polish customers
- ▶ high water efficiency - 100% closed water system
- ▶ high energy efficiency - production under LED lamps
- ▶ production without pesticides
- ▶ year round production





# Lettuce - tendencies in production

- ▶ less plastic - plastic pot or paperpot,
- ▶ organic production
- ▶ paper packing
- ▶ new products - batavia + rucola + lollo rossa in one pot ?
- ▶ microgreens





# Production and delivery of MGS for lettuce and herbs

Movingsystem.pl

Ul. Brzozowa 17

09-300 Zuromin

Mob + 48 501 49 68 69

email [pawel@salaty.com.pl](mailto:pawel@salaty.com.pl)

