



International Conference
“Berries of Russia 2021”

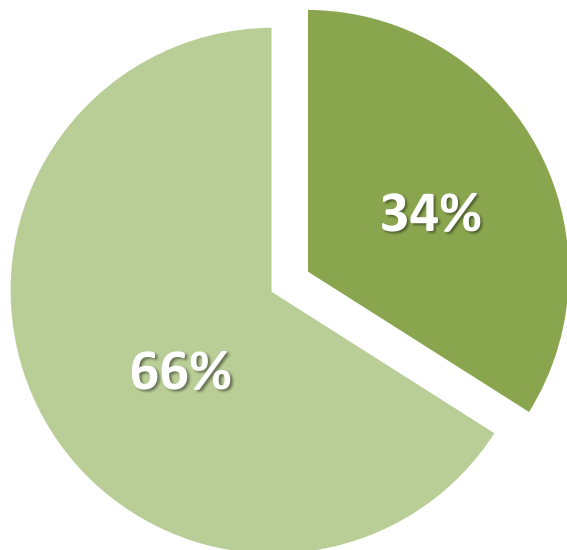


Resource-saving technology of blackcurrant cultivation in the Middle Volga region

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PRODUCTION OF FRUITS AND BERRIES IN THE SAMARA REGION IN 2020



- ОАО «Сургутское» Сергиевские сады
- другие хозяйства Самарской области



4 107 ha
of fruit and berry
plantations

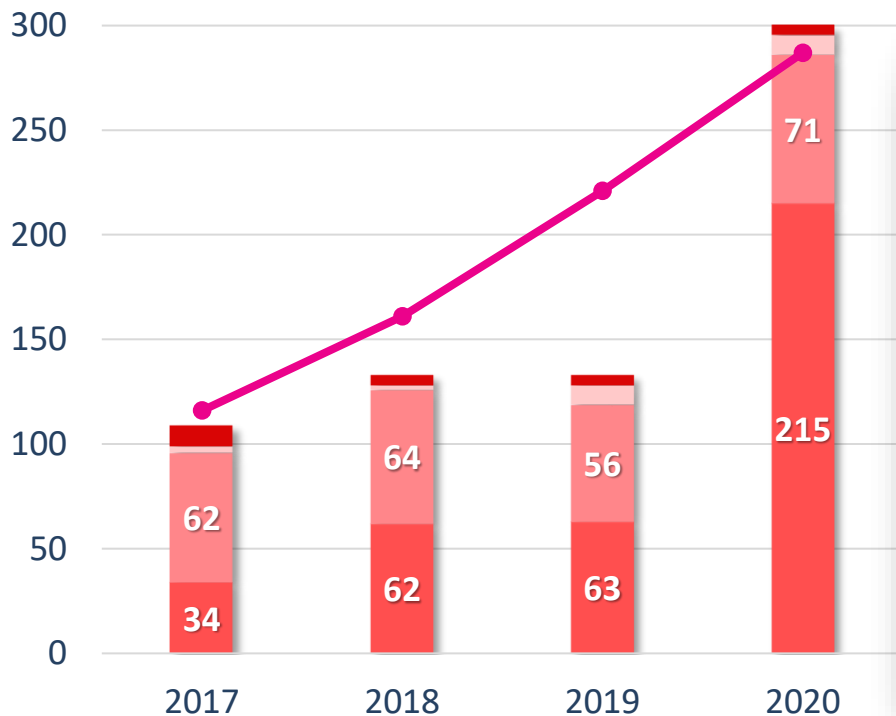


20 000 tons of
fruits and berries
harvested in the
Samara region



9 140 tons
of fruits and berries
harvested by
Surgutskoye

GROSS OUTPUT OF BERRIES, tons



ТОНН

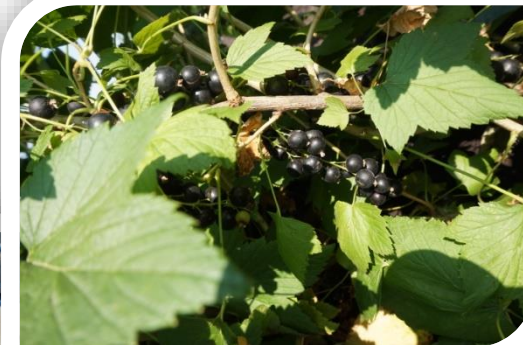
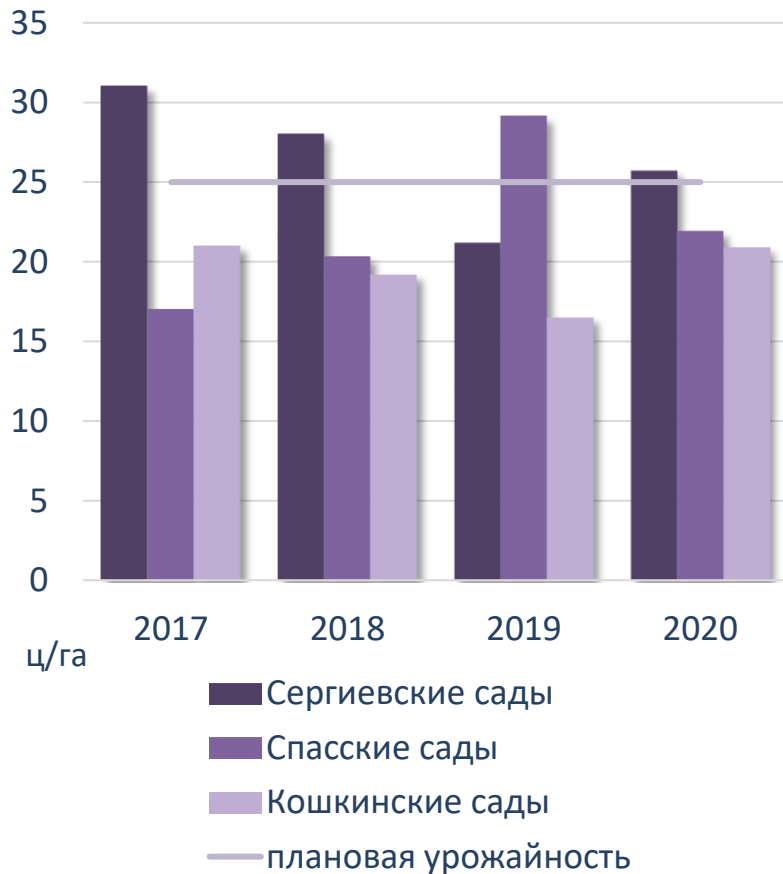
- арония
- малина
- смородина
- земляника
- плановый валовой сбор ягод

NON-SYSTEM PROBLEMS OF BLACKCURRANT CULTIVATION

- recurrent frosts
- low positive temperatures and strong winds during flowering
- high solar insolation, causing high-temperature burns during the period of berry ripening



AVERAGE YIELD BY ENTERPRISES, 100 kg / ha



BASIC AND PROSPECTIVE VARIETIES, GROWN AT THE FARM

- Cherny zhemchug (Black Pearl)
- Tambovskaya
- Zelenaya dymka (Green mist)
- Lyubava
- Bobrovaya
- Valovaya
- Krasa Altaya (Altai beauty)



PLANTING STOCK PRODUCTION

Annual demand for planting stock
60-70 thousand pcs

- 12-14 cm cuttings are planted in autumn under mulching material with drip irrigation
- next autumn we establish a berry field with annual seedlings



YOUNG BLACKCURRANT CULTIVATION TECHNOLOGY



- before planting we install a drip irrigation system, water the ridges
- we plant the currant plants at the end of September in the prepared soil at an angle of 45°, deepening them by 3-4 buds. Planting scheme: 4 × 0.5
- after planting we cut the seedlings at 2-3 buds level from the earth surface
- for the first four years we keep the soil under bear fallow. We cultivate or till the row spacings, using in rows a ZUZA weeder with further manual weeding
- we water the plantings in the morning hours
- until the plantation is 6 years old we pick berries only by hand



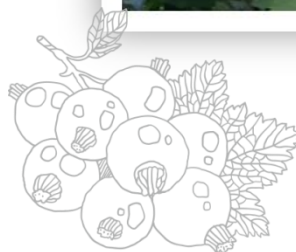
FRUITING BLACKCURRANT CULTIVATION TECHNOLOGY

- from the plantation's age of four the row spacings are kept under grassing. We mulch the green mass. Along the bushes we work with a tiller for near-trunk tillage
- Until the plantation's age of six pruning consists of forming a bush for mechanized harvesting. We remove damaged and drooping branches. After we start harvesting with a combine harvester, we increase sanitation pruning, remove the criss-cross branches along the row where the harvester plant guide passes
- we keep the soil moist, avoiding waterlogging



MINERAL NUTRITION

- we develop a fertilizer system based on soil analysis for the availability of macro- and microelements
- we take into account the periods of the currant plant life cycle: before entering the fruiting stage, at the fruiting stage
- we take into account the need for nutrients during the vegetation stage
- we adjust nutrition during the vegetation stage based on leaf diagnostics
- we perform plant-root fertilization along with watering, and foliar fertilizing - with treatment against pests and diseases



PROTECTION AGAINST PESTS AND DISEASES

Stage of plant development	Pests, diseases	Agrichemicals	Rate of application kg(l)/ha
Swelling of buds	Overwintering scales, mites, aphids, soft scales	Preparation 30 plus, MME	40
Flower-bud formation	Spot diseases	Cupid gold, SP (770 g / kg copper hydroxide)	1,6
	Mildew	Topaz, EC (100 g / l penconazole)	0,4
After flowering	Mites	Vertimek, EC (18g / l abamectin)	1
	Complex of pests, currant clearwing moth	Fufanon expert, VE (440 g / l malathion)	1,7
	Mildew	Tiovit jet, VDG	2,5
After flowering	Complex of pests, currant clearwing moth	Lambda-S, EC (50 g / l lambda-cyhalothrin)	0,4



HARVESTING

- continuous harvesting - 30 days
- projected blackcurrant output in 2021 – 83 t
- 80% hand-harvesting
- 20% machine harvesting

Parameters	2020
Yield, 100 kg/ha	25,7
Cost price of hand-harvested berries, RUB/kg	41
Cost price of machine-harvested berries, RUB/kg	22
Average sale price of hand-harvested berries, RUB/kg	143
Average sale price of machine-harvested berries, RUB/kg	42



PROCESSING AND SALES

- 92% of berries are sold fresh to small-scale wholesale buyers of Samara, Penza and the neighboring regions
- we produce jams, preserves, frozen semi-finished products for stores and the confectionery industry



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СОЮЗ



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