

# Szentmihályi Ökoporta, HU

**Organic Farming since: 2016**

**Association/certification body:**

Biokontroll Hungária Nonprofit Kft.



Photos: © Zoltán Reznek by drone and Szentmihályi Ökoporta

## Yield enhancing strategy, what makes the farm special?

From 2025, our farm has registered its entire arable area under organic farming, in addition to the organic orchard. In addition to growing organic apples for table consumption, we have developed a short supply chain where we sell organic apple juice made from our own apples through basket communities and direct sales. In order to diversify our farm, we have purchased a French-style Astrie mill, with which we intend to produce and sell flour from the wheat we grow in the future. We added a small herd of cattle to our farm at the end of last year.

## Optimisation wishes and questions:

Changing market conditions and extreme weather have forced us to rethink the way we run the farming from the ground up. That is why we decided to try to pursue soil-focused farming, taking into account the aspects of regenerative farming. The droughts and hot summers of the past few years have made us realise that we need to let go of our habits and change not only our tillage practices, but also our cropping patterns.

From next January, the crops will have "conversion status," and by 2027, they will be certified organic. One of the main goals is to produce high-quality cereals, which will be milled into flour using our own mill for use in food co-ops and short supply chain channels.

Beyond grains, the aim is to grow crops that fit well into the crop rotation system, such as organic sweet corn or green peas. We are also open to seed production, as we already have experience in producing oil radish and phacelia seeds.

**Farm:** 120 ha arable land, 40 ha grassland, 10 ha orchard, 200 chicken

**Soils:** Calcareous meadow chernozem, (Humus: 0,5-3,5%; pH: 6,45-9; Groundwater: < 2m)

## Rainfall and temperatures

| 2024 & 2025       | J   | F   | M   | A    | M    | J    | J    | A    | S    | O    | N   | D   | Year |
|-------------------|-----|-----|-----|------|------|------|------|------|------|------|-----|-----|------|
| Rainfall [mm]     | 33  | 15  | 51  | 32   | 48   | 80   | 33   | 22   | 87   | 45   | 36  | 7   | 486  |
| Temperatures [°C] | 1.4 | 3.7 | 8.7 | 11.7 | 15.9 | 21.1 | 22.8 | 22.5 | 18.4 | 10.7 | 4.7 | 2.8 | 12.0 |

The yields of our first organic harvest 2025 are [(payed) t/ha]: wheat: 5.44, sunflower: 3.15, Maize 4.94 and for seed: phacelia: 0.83, scarlet clover: 0.12, and oilseed rape: no yield.

| Our crop rotation plan: |            |             | in transition to organic |              |                | organic           |           |
|-------------------------|------------|-------------|--------------------------|--------------|----------------|-------------------|-----------|
|                         | 2020       | 2021        | 2022                     | 2023         | 2024           | 2025              | 2026      |
| 5,3 ha                  | wheat      | phacelia    | alfalfa                  | alfalfa      | alfalfa        | phacelia          | wheat     |
| 9,6 ha                  | sunflower  | sweet corn  | wheat / barley           | sunflower    | oilseed rape   | wheat             | phacelia  |
| 8,9 ha                  | sunflower  | sweet corn  | wheat                    | sunflower    | oilseed rape   | wheat             | phacelia  |
| 17,3 ha                 | phacelia   | green peas  | sunflower                | sweet corn   | Scarlet clover | Scarlet clover    | wheat     |
| 12,4 ha                 | sweet corn | hybrid corn | sweet corn               | green peas   | wheat          | oilseed rape      | feed peas |
| 7,4 ha                  | wheat      | phacelia    | alfalfa                  | alfalfa      | alfalfa        | alfalfa           | wheat     |
| 13,7 ha                 | rapeseed   | sunflower   | phacelia                 | oilseed rape | corn           | sunflower         | stubble   |
| 13,5 ha                 | sunflower  | corn        | corn                     | wheat        | sunflower      | corn              | alfalfa   |
| 11,6 ha                 | sunflower  | corn        | corn                     | wheat        | sunflower      | phacelia          | corn      |
| 13,8 ha                 | sunflower  | corn        | alfalfa                  | alfalfa      | alfalfa        | alfalfa           | alfalfa   |
| 1,8 ha                  | alfalfa    | grass       | grass                    | grass        | grass          | grass             | grass     |
| 2,5 ha                  | sunflower  | sweet corn  | phacelia                 | feed peas    | oat            | corn / sweet corn | sunflower |
| 6,4 ha                  | apple      | apple       | apple                    | apple        | apple          | apple             | apple     |
| 3,5 ha                  | apple      | apple       | apple                    | apple        | walnut         | walnut            | walnut    |

Currently, our priorities are the transition to organic farming, testing new varieties, and introducing animals to the farm. The effects of previous synthetic fertilization (in 2024) were still noticeable in 2025. There was no deliberate undersowing in 2025, but after phacelia seed production we always leave volunteer growth until the next sowing.

Our plan is to use undersowing in cereal production and to increase the area of milling cereals, selling the output as flour. Several areas will remain green fallow as cover crops, and perennial crops will be used as fodder for our own livestock. We would like to determine this with animals.

## Machinery

### Tractors

|                            |          |
|----------------------------|----------|
| MF 5711S Traktor           | Power HP |
| MF 7714 Traktor            | 130 HP   |
| MF 3630 Traktor            | 180 HP   |
| Landini Ghibli 100 Traktor | 80 HP    |
|                            | 100 HP   |

### Cultivation

Working width in meters

|                                       |       |
|---------------------------------------|-------|
| Kverneland Qualidisc Farmer 3000      |       |
| Kverneland DL                         | 3.0 m |
| 6-row Monosem planter                 |       |
| 3-furrow Kverneland reversible plough |       |
| Kongskilde Vibro Master cultivator    | 5.3 m |
| Omikron 4-shank subsoiler             |       |