

Inspection report No. 01_AFL_2023/HR

Parties : **SGS Adriatica / Miscanthus d.o.o.**
Nature of goods : **Miscanthus x giganteus**
Location : **Donja Gračenica, Croatia**
Plant/Garden identification : **Miscanthus x giganteus**
Scope of inspection : **Inspection of rhizome quantity Miscanthus x Giganteus**
Dates of planting process : **03th February, 2023**

In accordance with offer's obligation our inspector carried out instructions summarized as under:

SGS Adriatica d.o.o. attended supervision inspection on 03.02.2023. of quantitative rhizome analysis of Miscanthus x Giganteus plant propagation material fo, Miscanthus ex vitro seedlings plantation 2019., Miscanthus ex vitro seedlings plantation 2020., Miscanthus ex vitro seedlings plantation 2021 and rhizome planted Miscanthus plantation 2020. in Donja Gračenica and Podgorja Bračevačkog (općina Drenje), Croatia. All Miscanthus d.o.o. nursery plantations are in the good shape and developed with minimum plant losses. Based on air-dron video, photos documented in Video material dd.03.02.23. and visual inspection the Miscanthus d.o.o. plantations establishment rate is over 95% for ex-vitro plants nurseries and not less then 85% for the first generation plants nurseries.

The inspection was carried out on the following land plots with field ID codes (accordingly to Miscanthus d.o.o. nursery plantations establishment in years 2019,2020 and 2021)

Year 2019: Gračenica 1998; 1999; 2009; 2010; 2011; 2057; 2063; 2064;

Year 2020 Gračenica 1930/2; 1930/1; 1911/1; 1911/2; 1832; 1831; 1830; 2201/1; 2201/2; 2190; 2191; 1811/1; 1812/1; 1813/1; 1814/1; 4121; 4111; 4106; 4064; 4120; 4102; 4101; 4103/1; 44103; 4112; 4113; 4114; 4115; 4116; 4117; 4118/1; 4118/2; 4119; 1940; 1705; 4869/214; 4869/173; 4869/11; 4869/174; 2360; 2359; 2419; 2767; 2774; 2775; 2776; 2032; 2031; 2028; 2027/2; 2027/1; 2026; 2025; 2024; 2023; 975/2; 812; 570/2; 3192/1; 1628/7; 2032; 2031; 2028; 2026; 2025; 2024; 2023; 2027/2; 2027/1; 828; 829; 1528/1; 1528/2; 354; 355; 1404; 2419, 2360, 2359, 2201/1, 2201/2, 2191, 2190, 2018, 2016, 1965, 1965, 1940, 1705, 4869/214, 4869/173, 4869/11, 4869/174, 2057, 4121, 4111, 4106, 4064, 4120, 4102, 4101, 4103/1, 4103/2, 4112, 4113, 4114, 4115, 4116, 4117, 1418/1, 4118/2, 4119, 1911, 1930;

Mikloška 1585; 1584; 1588; 1583; 1593; 1589; 1582; 1581; 1590; 1566; 1567; 1572; 1568; 1571; 1569; 1570; 1585, 1584, 1588, 1583, 1593, 1589, 1582, 1581, 1590;

Osekovo 270; 271; 302; 355; 354; 1073; 1074; 1072; 1081/3; 1080/1; 1082; 1081/1; 1081/3; 1080/4;

Vukovje 1034/1; 1044/4; 1044/1; 1044/2; 1044/3; 1474/7; 1474/6; 1474/5;

Stružec 1072; 1073; 1074; 1239; 1238; 1288;

Year 2021: Bračevacko podgorje 249 k.o.; Krsinci 418; 419; 416; 47/1; 48/1; 91;

Documented plant planting control and origin of in-vitro Miscanthus x giganteus seedling; for Miscanthus plantation 2019 was establish in Inspection report no. 1/102429/HR, by SGS Adriatica d.o.o., 14.06.2019.; for Miscanthus plantation 2020 was establish in Inspection report no. 1/05_AFL_2020/HR, by SGS Adriatica d.o.o., 19.05.2020.; for Miscanthus plantation 2021 was establish in Inspection no. 09_AFL_2021., 15.06.2021. For the first generation rhizomes planted Miscanthus plantation 2020 was establish in Inspection report no. 2/04_AFL_2020/HR, by SGS Adriatica d.o.o., 24.04.2020.

Determination of rhizome quantity was established by trial testing on supervisory inspection of Miscanthus x giganteus, 03.02.2023. on random plant samples consisted of extracting (manual digging and lifting) 10 plants per field from: ex vitro seedlings Miscanthus plantations planted in 2019., 2020., 2021 and rhizome planted Miscanthus plantation 2020.

Quantitative rhizomes analysis considering rhizomes condition examination, cleaning extracted rhizomes with clean water and rhizomes weighing to establish average number of rhizomes per plant and average

rhizome yield per planted Miscanthus seedlings plantation 2019., 2020., 2021 and Miscanthus rhizomes plantation 2020.

The values in Table 1. refers to Miscanthus seedlings plantation 2019. Measured values from 10 plants indicate: weight of the rhizomes per individual plant (g) and calculating values for number of rhizomes per individual plant. According to the determined weight of one rhizome as 15 grams indicate in total 257 as average number of rhizomes per plant.

Table 1. Measured values of 10 plants from Miscanthus seedlings plantation 2019. (plantation establishment Inspection report no. 1/102429/HR, by SGS Adriatica d.o.o., 14.06.2019.)

Miscanthus seedlings plantation 2019.				
Plant Ne	Weight of the rhizomes per plant (g)	Weight of one rhizome (g)	Number of rhizomes per plant	Average number of rhizomes per plant
1	4050	15	270	257
2	3420		228	
3	4515		301	
4	3990		266	
5	3315		221	
6	4215		281	
7	3795		253	
8	3795		253	
9	3825		255	
10	3690		246	

Table 1.

The values in Table 2.a. refers to Miscanthus seedlings plantation 2020. Measured values from 10 plants indicate: weight of the rhizomes per individual plant (g) and calculating values for number of rhizomes per individual plant. According to the determined weight of one rhizome as 15 grams indicate in total 164 as average number of rhizomes per plant.

Table 2.a. Measured values of 10 plants from Miscanthus seedlings plantation 2020. (plantation establishment Inspection report no. 1/05_AFL_2020/HR, by SGS Adriatica d.o.o., 19.05.2020.)

Miscanthus seedlings plantation 2020.				
Plant No	Weight of the rhizomes per plant (g)	Weight of one rhizome (g)	Number of rhizomes per plant	Average number of rhizomes per plant
1	2400	15	160	164
2	2700		180	
3	2055		137	
4	2820		188	
5	2385		159	
6	2835		189	
7	2565		171	
8	2160		144	
9	2490		166	
10	2205		147	

Table 2.a.

The values in Table 2.b. refers to Miscanthus rhizome plantation 2020. Measured values from 10 plants indicate: weight of the rhizomes per individual plant (g) and calculating values for number of rhizomes per individual plant. According to the determined weight of one rhizome as 15 grams indicate in total 66 as average number of rhizomes per plant.

Table 2.b. Measured values of 10 plants from Miscanthus rhizome plantation 2020. (plantation establishment Inspection report no. 2/04_AFL_2020/HR, by SGS Adriatica d.o.o., 24.04.2020.)

Miscanthus rhizome plantation 2020.				
Plant No	Weight of the rhizomes per plant (g)	Weight of one rhizome (g)	Number of rhizomes per plant	Average number of rhizomes per plant
1	780	15	52	66
2	930		62	
3	1005		67	
4	1080		72	
5	975		65	
6	1185		79	
7	945		63	
8	1020		68	
9	885		59	
10	1050		70	

Table 2.b.

The values in Table 3. refers to Miscanthus seedlings plantation 2021. Measured values from 10 plants indicate: weight of the rhizomes per individual plant (g) and calculating values for number of rhizomes per individual plant. According to the determined weight of one rhizome as 15 grams indicate in total 120 as average number of rhizomes per plant.

Table 3. Measured values of 10 plants from Miscanthus seedlings plantation 2021. (plantation establishment Inspection no. 09_AFL_2021., 15.06.2021.)

Miscanthus seedlings plantation 2021.				
Plant No	Weight of the rhizomes per plant (g)	Weight of one rhizome (g)	Number of rhizomes per plant	Average number of rhizomes per plant
1	1635	15	109	120
2	1965		131	
3	1740		116	
4	1980		132	
5	1500		100	
6	2055		137	
7	1785		119	
8	1935		129	
9	1770		118	
10	1665		111	

Table 3

The value in the Table 4.a. refers to the total potential yield of the first generation rhizomes at Miscanthus d.o.o. plantations as of February 2023. The number is calculated by number of planted ex vitro seedlings multiple natural losses of plants within stand life vegetation (as of February 2023 plants loss is less than 5%) multiple average yield of rhizomes accordingly.

Table 4.a. Calculated conservative estimation value of the first generation rhizomes on Miscanthus ex vitro plantations established in 2019, 2020 and 2021. (Inspection reports no. 1/102429/HR, by SGS Adriatica d.o.o., 14.06.2019.; no 1/05_AFL_2020/HR, by SGS Adriatica d.o.o., 19.05.2020.; no. 09_AFL_2021., 15.06.2021)

	Plants quantity (pcs)	Rhizome Yields (pcs/plant)	Assumed Rhizomes Quantity (pcs)
Ex vitro 2019	70 863	257	18 211 791
Ex vitro 2020	324 520	164	53 221 280
Ex vitro 2021	256 010	120	30 721 200

Table 4.a.

The value in the Table 4 .b. refers to the total potential yield of the second generation rhizomes at Miscanthus d.o.o. plantation as of February 2023. The number is calculated by number of planted first generation rhizomes multiple natural losses of plants within stand life vegetation (as of February 2023 plants loss is not more than 15%) multiple average yield of rhizomes accordingly.

Table 4.b. Calculated conservative estimation value of the second generation rhizomes on Miscanthus d.o.o. first generation rhizomes plantation established in 2020.(Inspection report Inspection report no. 2/04_AFL_2020/HR, by SGS Adriatica d.o.o., 24.04.2020.)

Years of Plantations Establishment	Plants quantity (pcs)	Rhizome Yields (pcs/plant)	Assumed Rhizomes Quantity (pcs)
F1 rhizomes 2020	1 275 000	66	84 150 000

Table 4.b.

Inspection performed on 03th February 2023

The information stated in this report is derived from the results of inspection or testing procedures carried out in accordance with the instructions of our Client, and/or our assessment of such results on the basis of any technical standards, trade custom or practice, or other circumstances which should in our professional opinion be taken into account.

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Signed and dated at Zagreb,
On 03th February 2023



For and on behalf of
SGS Adriatica Ltd.

