

# PRODUCT INFORMATION SHEET

## ***p-35S, t-NOS, p-FMV, CP4 EPSPS, 35S-Pat, Cry1Ab/Ac / GMO-Maize (Bt11, MIR604) and GMO-Soya (RR GTS 40-3-2, RR2 MON89788) PT originated REFERENCE MATERIAL (RM)***

### Description of the RM

|                               |                                                                                                                                                                                                                                                            |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name / Material of related PT | <i>DLA ptGMS1 (2022) GMO-Screening I (qualitative): 5 Samples with positive/negative amounts of p-35S, t-NOS, p-FMV, CP4 EPSPS, 35S-Pat, Cry1Ab/Ac / GMO-Maize (Bt11, MIR604) and GMO-Soya (RR GTS 40-3-2, RR2 MON89788)</i>                               |
| Identifier / LOT              | <i>RM 2022-GMS1 Set</i>                                                                                                                                                                                                                                    |
| Expiry date                   | <i>September 2027</i>                                                                                                                                                                                                                                      |
| Matrix                        | <i>See table</i>                                                                                                                                                                                                                                           |
| Physical description          | <i>Powder</i>                                                                                                                                                                                                                                              |
| Packaging / weight            | <i>Sealed foil pouche / 5 x 10 g each</i>                                                                                                                                                                                                                  |
| Storage conditions            | <i>cooled 2 - 10°C (dry and dark)</i>                                                                                                                                                                                                                      |
| Name and address manufacturer | <b>DLA - Proficiency Tests GmbH</b><br>Hauptstr. 80, 23845 Oering, Germany<br>Tel. ++49-(0)4532-9183358, Fax. ++49(0)4102-9944976<br>eMail. <a href="mailto:pt@dla-lvu.de">pt@dla-lvu.de</a> , website. <a href="http://www.dla-lvu.de">www.dla-lvu.de</a> |

### Composition of Material

| DLA-Sample | Ingredients (per 100 g)                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>   | Complete feed for laying hens (64 g)<br>Ingredients: <b>Maize, soy extraction flour</b> , calcium carbonate, wheat, sunflower extraction flour, glued wheat feed, wheat bran, Ca-Na phosphate, sodium chloride, vegetable fatty acids and other additives<br>Nutrients per 100 g: Crude protein 19 g, crude fiber 3,9 g, crude fat 3,0 g, crude ash 17 g<br><br>Wheat flour Typ 405 (36 g)<br>Ingredients: Wheat<br>Nutrients per 100 g: Protein 10 g, Carbohydrates 72 g, Fat 1,0 g |
| <b>2</b>   | Wheat flour Typ 405 (100 g)<br>Ingredients: Wheat<br>Nutrients per 100 g: Protein 10 g, Carbohydrates 72 g, Fat 1,0 g                                                                                                                                                                                                                                                                                                                                                                |
| <b>3</b>   | Wheat flour Typ 405 (90 g)<br>Ingredients: Wheat<br>Nutrients per 100 g: Protein 10 g, Carbohydrates 72 g, Fat 1,0 g<br><br>Soya flour, European Supplier (6,4 g)<br>Ingredients: <b>Soya flour toasted</b><br>Nutrients per 100 g: Protein 37 g<br><br>Soya Chunks, USA Supplier (4,3 g)<br>Ingredients: <b>Soya flour</b><br>Nutrients per 100 g: Protein 47 g, Carbohydrates 17 g, Fat 0,8 g                                                                                      |
| <b>4</b>   | Wheat flour Typ 405 (79 g)<br>Ingredients: Wheat<br>Nutrients per 100 g: Protein 10 g, Carbohydrates 72 g, Fat 1,0 g<br><br>Maize flour, European Supplier (13 g)<br>Ingredients: <b>Maize flour</b><br>Nutrients per 100 g: Protein 7,5 g, Carbohydrates 77 g, Fat 1 g<br><br>Maize flour, USA Supplier (8,1 g)<br>Ingredients: <b>Maize flour</b><br>Nutrients per 100 g: Protein 9 g, Carbohydrates 79 g, Fat 0 g                                                                 |

| DLA-Sample | Ingredients (per 100 g)                                                                                                                     |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 5          | Wheat flour Typ 405 (80 g)<br>Ingredients: Wheat<br>Nutrients per 100 g: Protein 10 g, Carbohydrates 72 g, Fat 1,0 g                        |
|            | Soya flour, European Supplier (10 g)<br>Ingredients: <b>Soya flour toasted</b><br>Nutrients per 100 g: Protein 37 g                         |
|            | Maize flour, European Supplier (10 g)<br>Ingredients: <b>Maize flour</b><br>Nutrients per 100 g: Protein 7,5 g, Carbohydrates 77 g, Fat 1 g |

### Minimum Sample Size

A minimum sample size of 5 g is recommended for sample preparation.

The homogeneity tests were performed with sample sizes of 5 g (Microtracer analysis).

The mixture homogeneity before bottling was examined 8-fold by microtracer analysis for samples 2-5. Homogeneity was sufficient with a probability of  $\geq 25\%$  (excellent mixture) and a HorRat value in the range of acceptance (0,3 to 1,3) (for more details see final report of PT).

### Reference Values

All reference values were derived from the related proficiency test (PT) round (for more details see final report).

#### Reference Values qualitative: p-35S-Screening-Sequence

|                        | Sample 1        | Sample 2        | Sample 3        | Sample 4        | Sample 5        |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Number positive        | 28              | 0               | 28              | 28              | 0               |
| Number negative        | 0               | 28              | 0               | 0               | 28              |
| Percent positive       | 100             | 0               | 100             | 100             | 0               |
| Percent negative       | 0               | 100             | 0               | 0               | 100             |
| <b>Consensus value</b> | <b>positive</b> | <b>negative</b> | <b>positive</b> | <b>positive</b> | <b>negative</b> |

#### Reference Values qualitative: t-NOS-Screening-Sequence

|                        | Sample 1        | Sample 2        | Sample 3        | Sample 4        | Sample 5        |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Number positive        | 28              | 0               | 28              | 28              | 0               |
| Number negative        | 0               | 28              | 0               | 0               | 28              |
| Percent positive       | 100             | 0               | 100             | 100             | 0               |
| Percent negative       | 0               | 100             | 0               | 0               | 100             |
| <b>Consensus value</b> | <b>positive</b> | <b>negative</b> | <b>positive</b> | <b>positive</b> | <b>negative</b> |

#### Reference Values qualitative: p-FMV-Screening-Sequence

|                        | Sample 1        | Sample 2        | Sample 3        | Sample 4        | Sample 5        |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Number positive        | 24              | 0               | 18              | 0               | 0               |
| Number negative        | 0               | 23              | 5               | 23              | 23              |
| Percent positive       | 100             | 0               | 78              | 0               | 0               |
| Percent negative       | 0               | 100             | 22              | 100             | 100             |
| <b>Consensus value</b> | <b>positive</b> | <b>negative</b> | <b>positive</b> | <b>negative</b> | <b>negative</b> |

#### Reference Values qualitative: CTP2-CP4 EPSPS-Screening-Sequence

|                        | Sample 1        | Sample 2        | Sample 3        | Sample 4        | Sample 5        |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Number positive        | 19              | 0               | 18              | 19              | 0               |
| Number negative        | 0               | 19              | 1               | 0               | 19              |
| Percent positive       | 100             | 0               | 95              | 100             | 0               |
| Percent negative       | 0               | 100             | 5               | 0               | 100             |
| <b>Consensus value</b> | <b>positive</b> | <b>negative</b> | <b>positive</b> | <b>positive</b> | <b>negative</b> |

**Reference Values qualitative: 35S-Pat-Screening-Sequence**

|                        | Sample 1    | Sample 2        | Sample 3        | Sample 4        | Sample 5        |
|------------------------|-------------|-----------------|-----------------|-----------------|-----------------|
| Number positive        | 8           | 0               | 3               | 12              | 0               |
| Number negative        | 4           | 12              | 19              | 0               | 12              |
| Percent positive       | 67          | 0               | 25              | 100             | 0               |
| Percent negative       | 33          | 100             | 75              | 0               | 100             |
| <b>Consensus value</b> | <b>none</b> | <b>negative</b> | <b>negative</b> | <b>positive</b> | <b>negative</b> |

**Reference Values qualitative: Cry1Ab/Ac-Screening-Sequence**

|                        | Sample 1        | Sample 2        | Sample 3        | Sample 4        | Sample 5        |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Number positive        | 8               | 0               | 8               | 8               | 0               |
| Number negative        | 0               | 8               | 0               | 0               | 8               |
| Percent positive       | 100             | 0               | 100             | 100             | 0               |
| Percent negative       | 0               | 100             | 0               | 0               | 100             |
| <b>Consensus value</b> | <b>positive</b> | <b>negative</b> | <b>positive</b> | <b>positive</b> | <b>negative</b> |

**Reference Values qualitative: GMO-Maize Bt11**

|                        | Sample 1    | Sample 2        | Sample 3        | Sample 4        | Sample 5        |
|------------------------|-------------|-----------------|-----------------|-----------------|-----------------|
| Number positive        | 5           | 0               | 0               | 8               | 0               |
| Number negative        | 3           | 6               | 8               | 0               | 6               |
| Percent positive       | 63          | 0               | 0               | 100             | 0               |
| Percent negative       | 38          | 100             | 100             | 0               | 100             |
| <b>Consensus value</b> | <b>none</b> | <b>negative</b> | <b>negative</b> | <b>positive</b> | <b>negative</b> |

**Reference Values qualitative: GMO-Maize MIR604**

|                        | Sample 1        | Sample 2        | Sample 3        | Sample 4        | Sample 5        |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Number positive        | 0               | 0               | 0               | 8               | 0               |
| Number negative        | 8               | 7               | 8               | 0               | 7               |
| Percent positive       | 0               | 0               | 0               | 100             | 0               |
| Percent negative       | 100             | 100             | 100             | 0               | 100             |
| <b>Consensus value</b> | <b>negative</b> | <b>negative</b> | <b>negative</b> | <b>positive</b> | <b>negative</b> |

**Reference Values qualitative: Maize-DNA (Maize-specific)**

|                        | Sample 1        | Sample 2        | Sample 3    | Sample 4        | Sample 5        |
|------------------------|-----------------|-----------------|-------------|-----------------|-----------------|
| Number positive        | 12              | 0               | 7           | 12              | 11              |
| Number negative        | 0               | 12              | 5           | 0               | 1               |
| Percent positive       | 100             | 0               | 58          | 100             | 92              |
| Percent negative       | 0               | 100             | 42          | 0               | 8               |
| <b>Consensus value</b> | <b>positive</b> | <b>negative</b> | <b>none</b> | <b>positive</b> | <b>positive</b> |

**Reference Values qualitative: GMO-Soya RR (GTS 40-3-2)**

|                        | Sample 1        | Sample 2        | Sample 3        | Sample 4        | Sample 5        |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Number positive        | 10              | 0               | 10              | 1               | 0               |
| Number negative        | 0               | 8               | 0               | 7               | 8               |
| Percent positive       | 100             | 0               | 100             | 13              | 0               |
| Percent negative       | 0               | 100             | 0               | 88              | 100             |
| <b>Consensus value</b> | <b>positive</b> | <b>negative</b> | <b>positive</b> | <b>negative</b> | <b>negative</b> |

#### Reference Values qualitative: GMO-Soya RR2 (MON89788)

|                        | Sample 1        | Sample 2        | Sample 3        | Sample 4        | Sample 5        |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Number positive        | 8               | 0               | 8               | 0               | 0               |
| Number negative        | 1               | 8               | 1               | 8               | 8               |
| Percent positive       | 89              | 0               | 89              | 0               | 0               |
| Percent negative       | 11              | 100             | 11              | 100             | 100             |
| <b>Consensus value</b> | <b>positive</b> | <b>negative</b> | <b>positive</b> | <b>negative</b> | <b>negative</b> |

#### Reference Values qualitative: Lectin-DNA (Soya-specific)

|                        | Sample 1        | Sample 2        | Sample 3        | Sample 4    | Sample 5        |
|------------------------|-----------------|-----------------|-----------------|-------------|-----------------|
| Number positive        | 11              | 1               | 11              | 3           | 9               |
| Number negative        | 0               | 9               | 0               | 7           | 1               |
| Percent positive       | 100             | 10              | 100             | 30          | 90              |
| Percent negative       | 0               | 90              | 0               | 70          | 10              |
| <b>Consensus value</b> | <b>positive</b> | <b>negative</b> | <b>positive</b> | <b>none</b> | <b>positive</b> |

#### Intended Use

- for laboratory use only, no food!
- validation of analytical methods
- control sample for quality control charts
- test material for inter-laboratory comparisons
- no medical use

#### Storage Instructions and Handling Information

The material should be stored as stated on page 1. Before use of the material should be warmed up to room temperature. The content should be mixed thoroughly prior to subsampling (see minimum sample size above). The material should be weighed immediately after opening of the foil pouche/bottle and closed again afterwards in order to avoid uptake of moisture. Frequent freezing and thawing should be avoided as this can lead to changes in the properties of the material. The expiry date of this RM is based on the current knowledge and applies only for proper storage conditions in the originally closed foil pouche/bottle.

#### Safety Precautions

The usual laboratory safety precautions should be applied when working with the RM considering the type of ingredients, parameters and its concentration.

#### Data Source

The material was analyzed by 27 laboratories within the related proficiency test (PT). Different analytical methods have been used.

#### Various

The user must determine the suitability of this RM for its particular purpose. DLA makes no warranty of any kind, expressed or implied, other than its products meet all quality control standards set by DLA. We do not guarantee this product can be used for a special application.



| approved (PT-Coordinator)      | updated                    |
|--------------------------------|----------------------------|
| Matthias Besler-Scharf, PhD    | Ulrike Vorreiter           |
| <i>signed M. Besler-Scharf</i> | <i>signed U. Vorreiter</i> |
| 28 November 2022               | 6 October 2026             |