

SUGAR BEET

ASSESSMENT OF PELLET TYPE 1972 FIELD TRIAL NAS 142 ML

SUMMARY:

The Hi, Maribo, Knolle 1, Knolle 2, and the Kultura standard pellets gave higher seedling emergence than the rubbed and graded seed whereas that of the Knolle 3 pellet was very much lower.

OBJECT:

To assess the influence of pellet type on percentage germination and rate of seedling emergence.

TREATMENTS:

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0 = Rubbed and graded 3.25 - 3.50 mm
1 = Germain All pellets 4.0 - 5.0 mm
2 = Hi
3 = Maribo
4 = Cérés 1
5 = Cérés 2
6 = Knolle 1
7 = Knolle 2
8 = Knolle 3
9 = Kultura standard
10 = Kultura

LAYOUT: 4 randomised blocks
Plot size 1 row x 12 yds x 20 in.

SOIL TYPE: Ashley (sandy loam) Field Bayle

BASAL MANURING: 5 cwt per acre Kainit
6 cwt per acre 20-11-11
4 cwt per acre Kieserite

VARIETY: Monohill (Fr 731) the same stock used for all pellet types.

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METHOD: The pellets were drilled on 1 May into a stale but fine firm seedbed. As the pellets did not differ greatly in size the same belt (Belt 16, hole 30) was used to drill all the pellets at 3.75 in. spacing. The rubbed and graded seed was drilled using belt 13.5, hole 30 at the same spacing using a Stanhay Mark II precision drill. 100 seeds were placed in each unit and those remaining after 12 yds were counted and removed. Pellet type was randomised between seeder units of the drill.

Weed control was achieved by an overall application of pyrazone at 2.2 lb a.i. per acre.

- RESULTS:**
1. There was no evidence of any difference in rate of emergence between the pellet types or the rubbed and graded seed.
 2. With the exception of Knolle 3 the seedling emergence from all pellets was at least as good as the rubbed and graded seed. The Hi, Maribo, Knolle I, Knolle 2 and the Kultura standard pellet in fact gave a statistically significant higher seedling emergence than the rubbed and graded seed.
 3. Only the Knolle 3 pellet gave a very low seedling emergence. It was noticed during the course of counting that some seedlings from this pellet type had died off after successful emergence; this effect was not observed in the 1971 experiment.

Pellet Type	% Seedling Emergence	
	31 May	8 June
	(± 2.99)	(± 2.85)
↳ Rubbed and graded	69.4	70.7
Germain	71.3	71.8
HI	77.6	80.7
Maribo	78.9	81.1
Cérès 1	77.7	78.6
Cérès 2	74.5	76.5
Knolle 1	80.2	82.5
Knolle 2	84.2	85.8
Knolle 3	34.7	34.8
Kultura standard	83.4	86.9
Kultura	75.5	76.6
S.E. (30 d.f.) %	± 5.99	± 5.69
as % G.M.	8.2	7.6