

UIKC variety research in the Netherlands

Johan WANDER, research quality coordinator UIKC and advisory service DLV Plant, department research; j.wander@dlvplant.nl

Luc REMIJN, project acquisition UIKC and advisor DLV Plant; l.remijn@dlvplant.nl

Theo HEIJBOER, farm manager UIKC and farm manager Proefboerderij Rusthoeve; proefboerderij_rusthoeve@ziezo.biz



Introduction

In 2005 the committee UIKC started large scale experiments with onion varieties. In our trials registered varieties are compared under real farmer conditions. UIKC started this research because of a lack of information on onion varieties.

How

The quality of onions (especially hardness and skin retention) is strongly effected by harvest, storage and grading and packing. In former research, onion varieties were grown on small scale fields, harvested with special trial equipment, small scale stored and also sorting and processing was done with special equipment.

Especially onion traders were not satisfied about the way this research was conducted. In 2005 UIKC started trials with plots of 400 m². With 3 replicates and 21 varieties in 2007 one trial is sized 25.000 m². In these trials:

- the onions are harvested with farmers equipment
- storage on farmers scale of 1000 kg per plot in boxes;
- grading and packing per variety by JWK Wiskerke Onions; on this level one disadvantage: no replicates
- our trial onions are treated like farmers onions are treated, which is specially of importance for quality



Results

Results shown in table 1 are based on results of 2 trials in 2005 and 2 trials in 2006. Every year 1 trial is conducted near Rusthoeve and 1 trial is conducted in the other important onion growing area of the Netherlands.

Table 1. Variety list 2007.

| Variety | Shape | Uniformity of shape | Index for skin retention | index for firmness | Index for dry matter | single centres | Net yield index |
|------------|-------|---------------------|--------------------------|--------------------|----------------------|----------------|----------------------|
| Arenal | 2 | 1.3 | 96 | 99 | 97 | 74 | 104 |
| Baldito | 2 | 1.6 | 104 | 95 | 99 | 71 | 92 |
| Bennito | 2 | 1.6 | 98 | 98 | 102 | 68 | 104 |
| Bingo | 2 | 1.6 | 93 | 94 | 103 | 52 | 103 |
| Canto | 2 | 1.5 | 104 | 110 | 105 | 69 | 90 |
| Donna | 2 | 2.1 | 97 | 95 | 100 | 79 | 102 |
| Hector | 2 | 1.9 | 102 | 106 | 105 | 69 | 102 |
| Hybelle | 2 | 1.0 | 102 | 103 | 98 | 73 | 106 |
| Hyskin | 3 | 1.3 | 95 | 97 | 95 | 81 | 103 |
| Hytech | 3 | 1.4 | 104 | 88 | 98 | 83 | 110 |
| Julia | 2 | 2.0 | 93 | 97 | 103 | 79 | 93 |
| Napoleon | 2 | 1.3 | 105 | 104 | 97 | 70 | 104 |
| Vento | 1 | 1.6 | 104 | 109 | 102 | 75 | 93 |
| Wellington | 2 | 1.3 | 102 | 107 | 96 | 76 | 95 |
| 100 = | | | | | 13.1 % | | 55 tha ⁻¹ |

Explanation for table 1:

- shape: 1 = globe - flat globe; 2 = globe; 3 = globe - high globe
- uniformity: 1 = all of same shape; 3 = more than 25 % deviation
- skin retention: > 90 = good, > 100 = better; this is not a n index for bold onions
- single centre: percentage of onions with 1 sprout or 2 sprouts on a short distance
- indexes: 100 = average of all varieties; higher index is better



The UIKC (onion information and knowledge centre) is a platform for advisory and research on growing onions. The UIKC is founded by DLV Plant and experimental farm Rusthoeve. The research program is guarded by DLV Plant and carried out by Rusthoeve. Rusthoeve is situated in the southwest of the Netherlands, one of the main onion growing areas in the Netherlands. Beside variety research every year several trials and demonstration fields are conducted for commercial companies, cooperation's and other research companies.

For more information: www.uinovatie.nl

UIKC, Noordlangeweg 42, 4486PR Colijnsplaat, Netherlands