Sugarcane New Cultivar "Ni26" adapted for Early Harvest

Katsuhiro MIYAGI, Sumisu SAKIYAMA, Gouki MAEDA, Shin IREI, Takashi NAITO, Kazuhiro TAROURA, Yoshifumi TAKAESU, Moritoshi TAMAKI, Yasuhiro HOKAMA, Moriya OOTA, Masato ISHIMINE, Kiichirou KINJYOU, Kaneo KINJYOU, Naoya MIYAZATO, Kazumi UEHARA, Jyukou KAMIYA, Eiken MIYAHIRA, Seiyu NAKASONE, Shigeru NAKAMA

1 Okinawa Pref.Agricultural Research Center Miyakojima Branch 2071-40Nisizato, Hirara, Miyakojima City, Okinawa, JAPAN 906-0012
2 Okinawa Pref.Agricultural Research Center, 820 Makabe, Itoman City, Okinawa, JAPAN 901-0336
3 Okinawa Pref.Science and Technology Promotion Division, 1-2-2 Izumizaki, Naha City, Okinawa, JAPAN 900-8570
4 Okinawa Pref.Agricultural Support Division, 1-2-2 Izumizaki, Naha City, Okinawa, JAPAN 900-8570
5 Okinawa Pref.Horticulture Promotion Division, 1-2-2 Izumizaki, Naha City, Okinawa, JAPAN 900-8570
6 Okinawa Pref.Nanbu Agricultural Development Center, 517 Yamakawa, Haebaru Town, Shimajiri County, Okinawa, JAPAN 901-1115
7 Okinawa Pref.Miyako Center for Agricultural Policy and Development, 1125 Nisizato, Hirara, Miyakojima City, Okinawa, JAPAN 906-0012
8 Okinawa Pref.Agricultural College, 1-15-9 Ookita, Nago City, Okinawa, JAPAN 905-0019
9 Okinawa Prefectural Agricultural Experiment Station
10 Agrisupport Minamidaito Corporation, 182zaisho, Minamidaito Village, Okinawa, JAPAN 901-3805

Abstract

"Ni26", a new sugarcane cultivar, was selected and developed from progenies of crossing “RK85-55”, a breeding line with an early high sugar content, as a seed parent with "RF79-247", a breeding line with easy-to-strip leaves, as a pollen parent at Okinawa Prefectural Agricultural Research Center with the aim of breeding a cultivar with early high sugar content and stable and high yield. By the line name “RK95-1”, its regional adaptability was examined in the Nansei Islands south of Amami-Oshima Island, Kagoshima Prefecture. As a result, its excellence was recognized in Minami-Daito-jima Island, Okinawa Prefecture, and, in 2007, it was registered as a new sugarcane cultivar, Ni26", and adopted as a recommended cultivar for Okinawa Prefecture.

The characteristics of “Ni26” are as follows:

1) The leaves are semi-erect. The leaf length is slightly longer than those of “NCo310” and “F161”. The leaf diameter is narrower than that of “F161” and comparable to that of “NCo310”. The stalk is bobbin-shaped, thicker than that of “NCo310” and medium-sized with thickness comparable to that of “F161”. The internodal length is slightly longer than those of “NCo310” and “F161”. The stalk color is yellow-green, but it becomes brown as “NCo310” when exposed to the rays of the sun.

2) The germination is comparable to that of “NCo310”. The sprouting is slightly inferior to that of “NCo310”, but the tillering rate is superior to that of “F161”.

3) Both top weight and ratio of tops are slightly larger than those of “NCo310” and smaller than those of “F161”.

4) The breakage resistance to wind is higher than that of “F161”.

5) According to the results of the smut testing performed using the wound inoculation method, “Ni26” was found to be “weak”, but it is stronger than that of “NCo310”.

6) The sugar content increases very rapidly. The sugar content is high. “Ni26” ripens faster than “NiF8”. It is an early high sugar cultivar whose sugar yield rate is higher than that of “NCo310”, “F161” and “NiF8” in all 3 crop rotations (spring planting, summer planting and ratooning). In summer planting, there are some years that the sugar content exceeds the standard (13.1%) in October onwards.

7) The yield is comparable to that of “F161” in spring planting, but the ratoon yield is high.

8) The sugar yield is higher in spring planting and ratooning rotations than that of “F161”.

9) In summer planting, the sugarcane sugar content is higher than the standard (13.1%) in October, November and December. The sugar yield is higher than that of “NiF8”. “Ni26” is suitable for early harvest.

10) The target region for this cultivar is Minami- and Kita- Daito-jima Islands region.

Keywords: Sugarcane, Early maturity, High quality, Early harvest