



# SOUTHERN-BY-SEQUENCING (SbS)

## SOUTHERN-BY-SEQUENCING (SBS) IS A PROPRIETARY TECHNOLOGY

enabling high-throughput molecular characterization of plants for biotech trait development. Through SbS, DuPont Pioneer scientists gain detailed, DNA sequence level information on transgenes. This information is used to select the best plants for future agricultural products.

**STATUS:** The technology helps develop future products with improved herbicide tolerance, insect protection, agronomic performance and nutritional content.

**TECHNOLOGY LOCATION:** U.S. with global applications

**CROPS:** Corn and Soybeans

**TECHNOLOGY APPLICATION:** Development

- DEVELOPMENT OF NEW BIOTECH PRODUCTS TO HELP SOLVE AGRICULTURAL CHALLENGES

### TECHNOLOGY LEADER

PROPRIETARY + HIGH THROUGHPUT + TARGETED SELECTION

**ANTICIPATING NEEDS /** Plant molecular characterization is an integral part of the advancement decision process for biotech product development. Typically used molecular characterization methods are resource consuming and do not provide the DNA sequence level details. SbS is a new molecular characterization tool that provides detailed information on genes and enables efficient selection of candidate plants for future seed products.

**DELIVERING SOLUTIONS /** SbS is a novel approach developed by DuPont Pioneer scientists to replace routine molecular characterization techniques in a high-throughput testing environment. SbS utilizes state of the art DNA sequencing technology and bioinformatics capabilities for robust identification of plants with undesired molecular features. Only plants with preferred molecular characteristics are then carried forward for further evaluations and product development. SbS is a high-throughput technology that provides DNA sequence-level information about genes to efficiently and accurately select plants that will become the foundation of future biotech seed products.

By helping accelerate product development, SbS is an additional tool DuPont Pioneer researchers are using to enhance productivity and bring the best products to our customers faster.

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