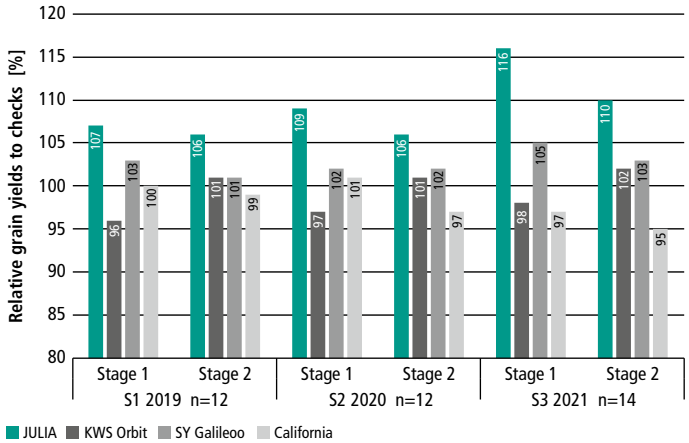
PORTFOLIO AND SALES TEAM GROW

The product range of Deutsche Saatveredelung AG (DSV) sees the addition of one multi-row and one two-row winter barley variety as well as two winter wheat varieties. Yet not only have we expanded our portfolio, we also welcome new members to the DSV grain team.

Oliver Wellie-Stephan: "Combining a double resistance to the soil-borne barley yellow mosaic viruses (type 1 and type 2) with good grain quality, JULIA offers a high cropping and marketing security!"

"The three 2019–2021 VCU years presented great challenges for the varieties tested, during which they were submitted to the full gamut of weather vagaries - dry springs, mild winters, wet summers, lack of sunshine and cold spells," tells Wellie-Stephan, DSV's cereals and grain legumes sales manager. After passing the preliminary and basic seed stages, these seeds are now ready for seed multiplication agencies marketing them as certified and Z seeds. Oliver Wellie-Stephan has been with DSV for 30 years when he joined the experimental seed division. He knows the industry like no other. In addition to his activities as a sales manager, he is also a sales consultant for DSV's Northwest sales region in Germany. "These varieties that have now received approval suggest a consistent yield performance in varying conditions in line with our observations in the years 2019-2021."

FIG. 1: JULIA – DELIVERING THE HIGHEST YIELDS YEAR AFTER YEAR



Source: WP final report 2022; stage 1 = untreated; stage 2 = treated; KWS Orbit, SY Galileoo and California = checks.

Barley yields peak again

JULIA is a winter barley variety that sets new benchmarks for multi-row varieties, achieving the highest score of 9/9 in the yield classification scheme both for untreated and treated grain, an exceptional result. In addition, the variety demonstrates great resistance to lodging, good leaf health with ears less prone to bending. In addition to that, JULIA offers an important double resistance to the soil-borne barley yellow mosaic type 1 and type 2 and also an excellent grain quality. The variety scored 8 points in the 'marketable percentage' and 'whole barley percentage' qualities and 5 points in the hectolitre weight category. Its excellent resistance to lodging makes JULIA a very suitable crop for organic fertilising schemes. This variety is ideal for cash crop growers and livestock farmers who are looking for a well-developed and top-yielding crop.

Highest yielding winter wheat variety

This top-yielding winter barley variety is not the only DSV development though. In fact, the highest-yielding winter wheat that was registered in Germany in 2022 is a DSV breed, too. This is the top-yielding DEBIAN B-wheat which demonstrated good yield stability in a wide range of different weather conditions during these past three VCU years, with this variety delivering higher yields than current C-wheats. In addition to that and in line with the current German Fertiliser Ordinance, it can be treated with as much as 20kg N/ha. In dry years ear emergence (score 3) starts early, which means the grain filling stage starts early, too. Moreover, DEBIAN has an improved root system. In

wet years, it benefits from its resistance to the orange wheat blossom midge. "Breeding pest resistant varieties that require less chemical treatment and yet maintain their yield potential is a top priority here at DSV," says Wellie-Stephan. Offering a higher TGW and good resistance to lodging (score 4), the variety is a well-balanced compensation type which boasts good winter hardiness and leaf health while showing medium resistance to Fusarium (score 5). Being an early crop, it should receive fertiliser and growth regulator treatments early. Its yield potential and yield stability makes DEBIAN the ideal variety for all growers.

How does resistance work?

DEBIAN has the Sm1 resistance gene which makes it resistant to the orange wheat blossom midge and blocks the larvae from developing after infesting the plants. This means the gene doesn't prevent the midge from depositing its eggs in the ears of resistant varieties but blocks the larvae from developing and harming the crop. The resistance gene has retained its effectiveness for over 50 years – also in large stands – and continues to be used by breeders around the world. This in turn means that DEBIAN offers this additional benefit at no extra cost! It allows growers to reduce input costs and protect the environment by saving insecticides – the best possible provision for future productivity.

TABLE 1: DEBIAN – THE NEW BENCHMARKER IN TERMS OF YIELDS (GRAIN YIELDS RELATIVE TO CLEARING VARIETIES (%))

Variety	Stage 1 (untreated)				Stage 2 (treated)			
	2019	2020	2021	Mean	2019	2020	2021	Mean
DEBIAN	106	103	108	**106**	106	105	108	**106**
Informer	104	103	101	**103**	103	102	101	**102**
Campesino		102	100			104	104	

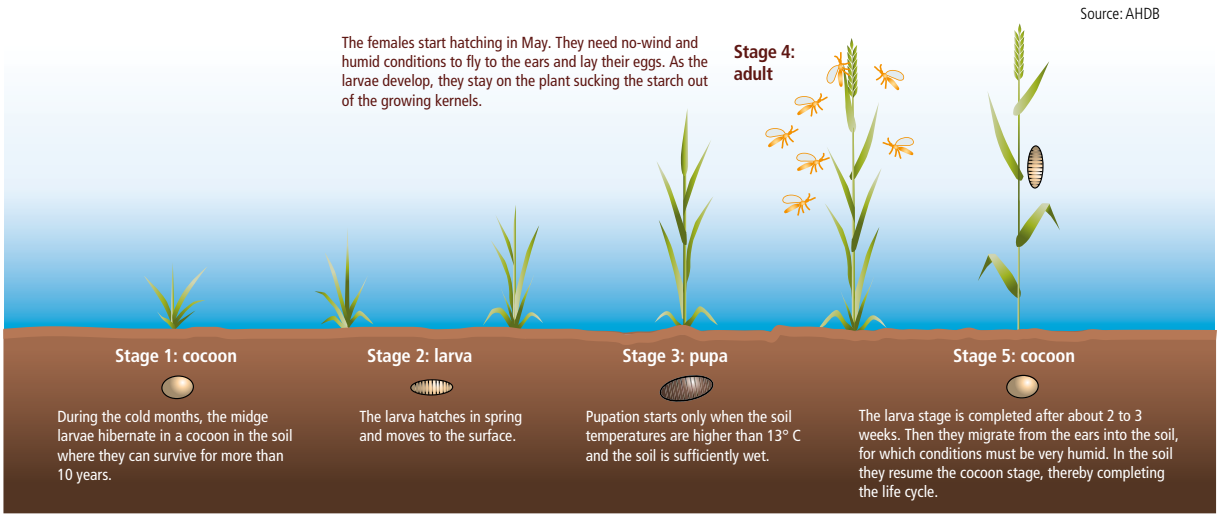
Source: Federal Plant Variety Office, 2022 Final VCU report, Orthogonal Yield Comparison; RGT Reform, Informer and LG Initial = Offse t Varieties (VRS)

In the important stage 2, DEBIAN yields are 4% higher than Informer yields and 2.5% higher than Campesino yields!

ABOUT THE WHEAT BLOSSOM MIDGE

There are two types of wheat blossom midges occurring in our cereal and wheat fields – the orange wheat blossom midge (sitodiplosis mosellana) and the yellow wheat blossom midge (contarinia tritici). The orange wheat blossom midge is about 2mm long. Its larvae feed on the developing wheat kernels, causing them to shrivel, crack and deform. The life cycle of the wheat blossom midge is illustrated below:

Source: AHDB



An infestation with orange wheat blossom midge doesn't really show, because the larvae usually sit and feed on the side of the kernels causing the typical damage of shrivelled and deformed kernels. Wheat blossom midge repeatedly causes severe damage in regional wheat stands and can then be nearly absent in the following years. This is attributed to the ability of the larvae to return to the cocoon stage (see graphic; stage 1) when conditions are not right. Ideal conditions for midge are humidity and warm temperatures in the period between ear emergence and anthesis. Yet there's more: the females (stage 4) are poor fliers and need no-wind and suitably humid conditions to fly to the wheat ear and lay their eggs. Wheat is exposed to this risk only for about five days – when hatching coincides with ear emergence and when conditions are optimal for midge, the pest can cause significant damage.

Felix Diepolder at the 2022 DLG Field Days.

NEW RECRUIT BOOSTS THE DSV TEAM

Paul Steinberg (31) joined the DSV sales team on 1 January 2022 as regional sales manager for South Eastern Germany (Saxony-Anhalt, Thuringia and Brandenburg). He is based at the DSV cereal breeding station in Leutwitz, which means he has the trial fields right on his doorstep.

There is particularly strong demand for modern winter wheats and their quality profiles in this region. The wheat variety POLARKAP – a hardy, quality-assured A-grade wheat – is just one of the exciting new varieties to be launched this year. Combining high yields with early maturity and outstanding health (Fusarium score 4) as well as a reasonable protein content (score 5), this variety offers characteristics that are unique in the A-grade range of wheat. POLARKAP is a large-grained compensation type that develops denser stands and has a high hectolitre weight and marketable fraction (uniform grain grading). "The variety is a very good fit for my sales area – POLARKAP is the ideal choice for growers of quality wheat who are looking for a flexible, healthy and high-yielding A-grade wheat that grows after all preceding crops. It has all it takes and is excellently adapted to the local conditions here – a real low-input wheat."

» I'M DELIGHTED TO HAVE SO MANY FASCINATING VARIETIES ON OFFER RIGHT AT THE START OF MY JOB. «

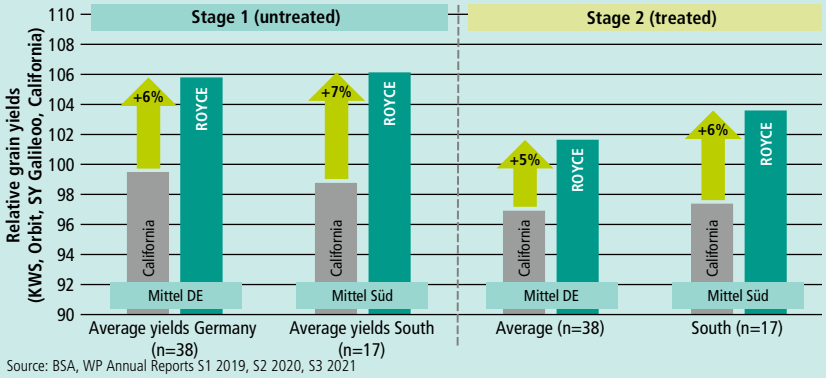
Paul Steinberg

Felix Diepolder (27) also joined the company at the start of this year, taking over as sales consultant for the preliminary and basic crops – cereals and grain legumes – in Southern Germany. "Two-row winter barley is still the dominant type in Southern Germany, so I am thrilled that the two-row winter barley ROYCE has been added to our portfolio as a new 2022 registration," says Felix. "Two-row varieties offer advantages in terms of straw stability and grain filling, which is why farmers in my area prefer them." ROYCE satisfies all these requirements. In terms of characteristics, ROYCE scores a very high 8 for both marketable fraction and barley content and 6 for TGW and hectolitre weight. For stem and ear snapping it scores a very respectable 4, and a 5 for storage. During the three-year VCU testing, ROYCE proved to be a high-yielding variety that led to bumper yields in the typical two-row regions. This mid-late variety has impressive all-round resistance with a very good rating of 3 for leaf rust of barley and a top rating of 4 for Ramularia.

» I AM THRILLED THAT THE TWO-ROW WINTER BARLEY ROYCE HAS BEEN ADDED TO OUR PORTFOLIO AS A NEW 2022 REGISTRATION.«

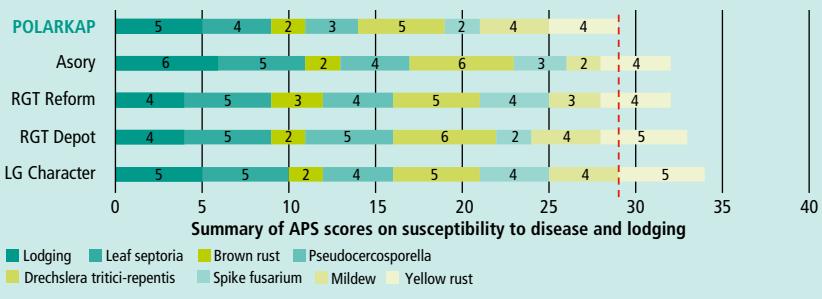
Felix Diepolder

FIG. 3: ROYCE – TOP YIELDS



Source: BSA, WP Annual Reports S1 2019, S2 2020, S3 2021

FIG. 2: POLARKAP – HEALTHY AND LODGE-RESISTANT



Source: BSL 2021, WP Final Report 2022, Filter: A-grade varieties, multiplication area > 1,000 ha without other DSV varieties

Paul Steinberg and Felix Diepolder are responsible for DSV grain and grain legume breeders within their sales areas as well as for expanding seed production fields, positioning DSV varieties in the market and overseeing services in the individual federal states.