

### 1st German 2019 Spring Brewing Barley Crop Report (current to 9/19/2019)

State	Statistics		Expert Forecast																		Main Barley Varieties
	Acreage Spring Barley in 1,000 ha		Yield MT/ha		Total Yield Spring Barley in 1,000 MT		Total Crop Area in 1,000 ha		Protein Content		Quality				Plumpnes >2.5 mm				Malting Quality in 1,000 MT		
	2018	2019	2018	2019	2018	2019	2018	2019	% 2018	% 2019	<9.0%	9,0% to 11.5%	11,5% to 12.5%	>12.5%	2018	2019	<80%	>80%	2018	2019	
											Protein in %				%						
Baden-Württemberg	55,5	60,7	5,8	6,0	319,6	364,2	40	40	10,9	10,5	5	90	5	0	90	88	N.A.	N.A.	200	237	Avalon Planet Accordine
Bavaria	108,0	101,3	4,91	4,66	530,2	472,0	105	98	11,1	11,6	2	48	21	29	93,6	86,9	23	76	340	300-350	20% Avalon 20% RGT Planet 20% Solist Rest: Accordine and Grace
Brandenburg	9	5,3	2,42	5,2	21,8	27,6															N.A.
Hesse	19,2	19,2	4,96	5,4	94	104	17	18	11,0	11	10	80	10	0	90	89	10	90	75	87	80% Avalon 10% RGT Planet
Mecklenburg-Vorpommern	19,6	6,3	3,46	51,9	67,7	32,7	4	2,5	11,7	11,2	0	50	40	10	94	91	10	90	10	13	RGT Planet Accordine Quench
Lower Saxony	85,0	43,4	5,1	5,6	429,2	243,2	33	30,3	11,7	11,9	3,0	58,0	23,0	16,0	90	85,5	30	70	170	120-130	70 - 75% Quench 15 - 20% Avalon approx. 10% Leandra some Cervinia
Nordrhein-Westf.	16,1	9,0	5,7	6,5	91,8	58,5	3	3	11,0	11	15	70	15	0	90	89	15	85	18	20	85% Avalon 10% Leandra Rest Propino
Rhineland-Palatinate	35,9	38,5	5,7	5,6	204,3	216	32,3	35,8	10,9	10,8	25	65	8	2	90,2	83,0	25,0	75,0	184	100 - 130	Warm regions: 90% Avalon, 10% Leandra Elevations: 55% Catamaran, 15% Avalon, 30% Leandra
Saxony	24,9	24,0	5,4	5,0	134,3	120	20,00	21	11,0	11,1	10,0	60,0	20,0	10,0	93,5	85	k.A.	k.A.	98	90 - 100 less if quality standards applied	Quench Planet Solist Avalon
Saxony-Anhalt	9,7	11,8	3,6	4,6	35	54,3	8,2	11,8	12	12,6	0	22,9	31,3	45,8	88,7	72	56,3	43,7	28	28	N.A.
Schleswig-Holstein	31,2	6,5	3,7	5,0	116,2	32															N.A.
Thüringia	32,0	31,6	5,39	5,8	171,0	182,0	29	29	11,2	12	4	40	23	34	90,4	73	60	40	140	110	Quench Avalon Planet Solist
<b>Germany</b>	<b>446</b>	<b>357,6</b>	<b>5,0</b>	<b>6,2</b>	<b>2.215</b>	<b>1.907</b>	<b>291,5</b>	<b>288,9</b>	<b>11,1</b>	<b>11,4</b>	<b>7</b>	<b>61</b>	<b>17</b>	<b>15</b>	<b>91,2</b>	<b>84,8</b>	<b>25</b>	<b>75</b>	<b>1.263</b>	<b>1.160</b>	

Source: Braugersten-Gemeinschaft e.V. (German Brewing Barley Association), Munich