The PNWCA believes it can be a key player in the effort to increase canola acreage, improve production per acre, and collaborate with and educate stakeholders involved with the canola industry in the 4-state region. The PNWCA will create a united effort from PNW canola growers, universities, ag industry, and agencies to address legislative needs, generate additional canola research funding, and forward the canola industry in the PNW.

The board of directors are all looking forward to supporting the mission of the PNWCA of ***"Growing the canola industry in the Pacific Northwest through education, advocacy, and marketing."***

PNWCA Board of Directors (Producers)

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Pictured here at the March 5 meeting of the Pacific Northwest Canola Association are: Anna Scharf, Randy Perkins, J.R. Swinger, Dale Flikkema, Tim Dillin, Douglas Poole, Karen Sowers, and Ray Mosman.

Spring Canola Seeding Rates

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DEPT. OF CROP AND SOIL SCIENCES, WSU

Increased spring canola seed rates could increase crop stand establishment canopy development and ultimately, weed competitiveness and productivity by maximizing yield potential. In 2016 and 2017 studies were established in different rainfall zones to evaluate seeding rate effects on canola yields using a singulating planter. All studies were planted with spring canola variety Hyclass 930 using an eight row Monosem planter on 10" row spacing calibrated to deliver seeding rate treatments. Seeding rates in 2016 were 3 (hilldrop), 4, 5, 6, 7, 8, 10, or 12 lb A^{-1}, and seeding rates in 2017 were 4, 5, 6, 7, 8, 10, 11, and 12 lb A^{-1}. Plots were 10' by 75' long. All studies were conducted in a randomized complete block design with 3 replications. The 2016 study was harvested using a Kincaid plot combine with a 5-foot header and the 2017 studies were all harvested using a 5-foot header Wintersteiger plot combine. In 2016, the initial Pullman study was planted on April 20th, 2016 at the Cook Agronomy Farm near Pullman, WA, in a high rainfall zone with annual precipitation of greater than 17 inches. The site was in a no-till system. In 2017, the repeated Pullman study was planted a no-till system on May 9, 2017

Planting the Davenport, WA canola study on May 18, 2017.

at the Palouse Conservation Field Station near Pullman, WA, also in a high rainfall zone. Canola crop emerged on May 22, 2017. The field site had an accumulative precipitation of 20.86" total for 1 year prior to harvest date of the trial. The Walla Walla study was planted on April 21, 2017 in a grower's field north of Walla Walla, WA, also in a high rainfall zone. Site was in a conventional tillage system and had been fertilized prior to planting by grower. Canola emerged on May 5, 2017. The study was harvested on August 14, 2017. The field site had an accumulative precipitation of 20.87" total for 1 year prior to harvest date of the trial. The Davenport study was planted on May 18, 2017 into a conventional system at the Wilke Research and Extension Farm near Davenport, WA. Davenport, WA, is in a medium rainfall zone with annual precipitation of 12 to 17 inches. Canola emerged on May 29, 2017. The study was harvested on August 22, 2017. The field site had an accumulative precipitation of 17.19" total for 1 year prior to harvest date of the trial. All data were subjected to an analysis of variance using the statistical package built into the Agricultural Research Manager software system (ARM 8.5.0, Gylling Data Management).

In 2016, spring canola stand counts increased as the seeding rate increased, with 10 plants m^{-1} for the 4 lb A^{-1} treatment and 31 plants m^{-1} for the 12 lb A^{-1} seeding rate (Table 1). As seeding rates increased, yields also increased. Yield for the seeding rate of 12 lb A^{-1} was higher than the lowest seeding rate of 4 lb A^{-1}, with 1362 lb A^{-1} compared to 824 lb A^{-1}. In Pullman in 2017, there was no difference in canola stand counts, however, as seeding rate increased so did the number of plants m^{-1}, with 13 plants m^{-1} for the 4 lb A^{-1} treatment and 28 plants m^{-1} for the 12 lb A^{-1} seeding rate (Table 2). As seeding rates increased, yields also increased. Yield for the seeding rate of 12 lb A^{-1} was greater than the lowest seeding rate of 4 lb A^{-1}, with 1825 lb A^{-1} compared to 1487 lb A^{-1} (Table 2). In Walla Walla, stand counts increased as the seeding rate increased, with 7 plants m^{-1} at the 4 lb A^{-1} treatment and 25 plants m^{-1} for the 12 lb A^{-1} seeding rate. As seeding rate and stand counts increased, branching per plant decreased from 3.3 branches per plant to 1.4 branches per plant. There were no differences in yield for any seeding rate in Walla Walla (Table 2). The lowest seeding rate of 4 lb A^{-1} produced 1928 lb A^{-1} yield and the highest seeding rate produced 1764 lb A^{-1} yield. Stand counts, or plants per meter, increased at the planting rate increased with 12 plants m^{-1} for 4 lb A^{-1} and 38 plants m^{-1} for the 12 lb A^{-1} rate. No differences in yield were observed for any seeding rate (Table 2). The lowest seeding rate of 4 lb A^{-1} produced 819 lb A^{-1} yield and the highest seeding rate, 12 lb A^{-1}, produced 841 lb A^{-1} yield. A singulating drill is a useful tool for reducing seed costs while increasing stand uniformity, as it allows for compensation to the wide range of seed counts and germination rate found in canola seed lots. Although a singulating planter will not likely facilitate reduced seeding rates, it will reduce overall seed use without compromising stand, when used correctly.

Table 1. Stand counts and yield for 2016 Pullman, WA, spring canola seeding rate study (Hyclass 930). Pullman, WA, 2016. DAP = days after planting. Means followed by the same letter are not statistically significantly different (α=0.05).

				June 21, 2016 62 DAP	*August 18, 2016*
Trt	**Seeding Rate**			**Stand Counts**	**Yield**
	seed/m	**seed/ft**	**lb/A**	**plants/meter**	**lb/A**
1	26	8	4	10 a	824 a
2	32	10	5	15 ab	985 ab
3	39	12	6	16 ab	1012 ab
4	46	14	7	18 abc	970 ab
5	52	16	8	23 bc	1006 ab
6	66	20	10	25 cd	1222 ab
7	79	24	12	31 d	1362 b
Hill drop	20	6	3	12 a	1139 ab
			LSD	*6*	*304*

Table 2. Stand counts and yield for Pullman, Walla Walla, and Davenport WA, spring canola seeding rate study (Hyclass 930) in 2017. DAP = days after planting. Means followed by the same letter are not statistically significantly different (α=0.05).

Pullman, WA

				July 20, 2017 72 DAP	*September 6, 2017*
Trt	**Seeding Rate**			**Stand Counts**	**Yield**
	seed/m	**seed/ft**	**lb/A**	***plants/meter***	***lb/A***
1	26	8	4	13	1487 ab
2	32	10	5	17	1534 ab
3	39	12	6	16	1297 a
4	46	14	7	17	1623 ab
5	52	16	8	18	1471 ab
6	66	20	10	25	1742 b
7	73	22	11	23	1696 b
8	79	24	12	28	1825 b
			LSD	*NS*	*241*

Walla Walla, WA

				June 29, 2017 69 DAP	*August 14, 2017*
Trt	**Seeding Rate**			**Stand Counts**	**Yield**
	seed/m	**seed/ft**	**lb/A**	***plants/meter***	***lb/A***
1	26	8	4	7 a	1928
2	32	10	5	11 ab	1855
3	39	12	6	10 ab	1804
4	46	14	7	12 ab	1791
5	52	16	8	14 bc	1828
6	66	20	10	18 cd	1812
7	73	22	11	21 de	1854
8	79	24	12	25 e	1764
			LSD	*4*	*NS*

Davenport, WA

				June 27, 2017 *40 DAP*	*August 22, 2017*
Trt	**Seeding Rate**			**Stand Counts**	**Yield**
	seed/m	**seed/ft**	**lb/A**	***plants/m***	***lb/A***
1	26	8	4	12 a	819
2	32	10	5	13 a	919
3	39	12	6	15 ab	908
4	46	14	7	19 bc	890
5	52	16	8	23 cd	925
6	66	20	10	26 d	932
7	73	22	11	32 e	794
8	79	24	12	38 f	841
			LSD	*4*	*NS*