Part 1. Oilseeds and Other Alternative Crops

Washington Oilseed Cropping Systems Extension and Outreach

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The Washington Oilseed Cropping System (WOCS) project focuses on conducting research and extension to improve oilseed production in Washington state. Over the past 13 years the WOCS project has conducted research on safflower, sunflowers, flax, camelina, and canola. The WOCS research program has focused a range of research areas including but not limited to fertility, herbicide use, plant density, and planting date. Effectively disseminating the information generated from this research is also in the purview of the WOCS project. The year 2019 saw some major changes in the WOCS extension staff. Karen Sowers moved on to work as the executive director for the Pacific Northwest Canola Association. While we were sad to have Karen leave the team, we are excited that she will continue to be involved in canola production and outreach in the region. Following Karen's departure, a new position for an extension agronomist in oilseeds was opened in the Department of Crop and Soil Sciences at Washington State University. The extension agronomist position expanded on the extension responsibilities of previous extension position and included both research and teaching appointments within the Department of Crop and Soil Sciences. In September of 2019, Isaac Madsen was appointed as the extension agronomist for the WOCS project. During the 2019 field season the extension team successfully hosted "stop and talks" and large-scale variety trials. The large-scale field variety trials were featured in the Pullman Weed Science and the Wilke Farm Field Days. In February of 2020, the extension team hosted the annual winter workshops in Wilbur and Clarkston. Attendance for the winter workshops was down from 253 in 2019 to 141 in 2020. However, we are looking forward to increased attendance in 2021! In addition to the traditional outreach activities of field days and workshops we continue to utilize podcasts, websites, and social media to spread the most recent information on canola production in Washington state. The WOCS website (www.css.wsu.edu/oilseeds) functions as the primary storehouse of the research conducted on oilseeds as part of the WOCS. The WOCS Facebook page (https://www.facebook.com/WSUOilseeds/) also continues to be active as a platform for disseminating information on upcoming events and any interesting observations we encounter while we are out and about the countryside. Additionally, Drew Lyon of the Wheat & Small Grains extension team was kind enough to host two canola centric interviews on The WSU Wheat Beat Podcast. Finally, 2020 has been an odd year to conduct research with social distancing in place please keep an eye out for video recording discussing the current research and extension efforts being conducted on oilseeds at WSU.

Effect of Row Spacing and Seeding Rate on Winter Canola Yield in Northern Idaho

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This study examined the effect of row spacing on seed yield and fall forage or biomass production and was initiated in the summer of 2014 at two sites near Moscow and Genesee, Idaho. The study was repeated for four years with harvests occurring each year from 2015 to 2018. Trials were seeded at two dates each year; an early seeding date in mid to late July and a traditional late seeding date in mid to late August or early September, depending on the year.

Row spacings of 10 and 20 inches and seeding rates of 3.2 and 4.8 lbs. per acre (approximately 285,000 and 425,0000 seeds per acre) were examined with four cultivars; 'Amanda,' 'HyCLASS 125W RR,' 'Mercedes' (except 2014-15), and a UI breeding line 'UI.WC.15.7.5.' The trials were planted on tilled fallow using a plot drill with Flexicoil paired-row Stealth openers. Fertilizer was pre-plant incorporated.

Plant biomass was estimated at the Moscow early sites in late September 2015, 2016, and 2017 by cutting, drying, and weighing a quadrat of foliage from each plot. When the plants were mature the following year, each plot was cut with a plot swather to ease harvest. When the swathed plants were dry, each plot was threshed with a small plot combine. The seed was dried to a uniform moisture content and weighed to determine yield. The 2015 Moscow late site was lost to winter kill, and the 2016 Genesee early and both 2018 Genesee dates did not establish due to dry soil conditions at seeding. A total of 12 trials were evaluated for seed yield over the course of the study.