



Being a woman with the “skills of a man”: negotiating gender in the 21st century US Corn Belt

Carly E. Nichols¹

Accepted: 23 December 2023
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Abstract

There has been broad interest in the so-called rise of women farmers in United States (US) agriculture. Researchers have elucidated the diverse ways farmers ‘perform’ gender, while also examining how engaging in a masculine-coded industry like agriculture shapes individuals’ gendered identities as well as their social and mental wellbeing. While illuminating, this work is mostly focused on sustainable or direct-market farmers, with surprisingly little research examining women on conventional row crops operations. This paper works to fill this empirical gap and further theorize gender-agriculture intersections through analyzing interviews with Iowa women row-crop farmers to understand the ways they perceive their gendered identities, and how they see them shaping their farming experience and mental wellbeing. Deploying a conceptual understanding of gender as both discursive and embodied as well as relational and fluid, I find respondents see themselves operating in a somewhat liminal gender identity, where they feel adept at moving between masculinized spaces of agriculture and more feminized domains of homes and office jobs. Critically, while women rarely expressed stress about doing “masculine” coded agricultural labor, they had more complex feelings towards either disliking or imperfectly completing feminized care and reproductive labor. Younger women expressed particular ambivalence about assuming the identity of farmer while also fulfilling gendered norms around (heterosexual) marriage and childbearing. The liminality of women’s gender performance also cut both ways, and while they feel able to access different gendered spaces some feel they are not fully accepted in either. I conclude by reflecting on what these particular forms of gendered subjectivity might mean for women’s mental wellbeing and how agencies might better support gender equity in agriculture.

Keywords Farm stress · Social reproduction · Equity · Gender · Agriculture

Abbreviations

US United States
USDA United States Department of Agriculture

Introduction

While women have always been involved in United States agriculture, due to structural changes in markets alongside cultural shifts, women are increasingly identifying and being counted as primary farmers (Ball 2020; Pilgeram et al.

2020). While the share of women in US agriculture is growing per official statistics, farming continues to be a male-dominated industry discursively structured around the idea of a “farmer” as a strong, rugged man in a heterosexual relation with a caring, feminized “farm woman” (Brandth 2020; Carter 2017; Keller 2014; Smyth et al. 2018). Researchers have thus documented the ways that women or gender non-conforming individuals navigate these normative gendered scripts, as well as how gender norms are themselves shaped by political economic changes in farming (Brandth 2002; Pini 2005a, b; Sachs et al. 2016; Wypler 2019). Here, much research has focused on how rising demand for sustainable or value-added agriculture has opened a niche where women farmers have thrived. (Annes et al. 2020; Jarosz 2011; Shisler and Sbicaca 2019; Trauger 2004; Wright and Annes 2019).

This scholarship has fostered deeper understanding of how gender and US agriculture intersect, yet there remains little

✉ Carly E. Nichols
carly-nichols@uiowa.edu

¹ Department of Geographical and Sustainability Sciences,
University of Iowa, 312 Jessup Hall, Iowa City, IA
52242, USA

research charting how women producers on conventional row crop farms are navigating gender (but see Ball 2014; Beach 2013; Nichols and Carter 2023). This lack of attention is surprising given row crop production's importance to the US farm economy. Corn and soybean represented 50% of total US agriculture sales in 2021 (USDA-ERS 2023) and received the lion's share of US farm subsidies (EWG 2023). While there are relatively "few" woman-identifying primary producers of grain/oilseed row crops¹ relative to other specializations such as livestock or horticulture, given the environmental and economic importance of these crops, research on women conventional farmers has the power to offer critical new insights. The lack of research is also striking, given an emerging interest in the role that women "non-operating landowners" (NOLs) - individuals who lease out farm ground - play in shaping agricultural landscapes (Carter 2017; Petrzela et al. 2018). Because demographic trends suggest women ownership - and potential operatorship - of Midwest farmland is expected to grow as women outlive farming husbands and young women outnumber men in agriculture degree programs (Kottke 2018, Tong and Zhang 2023), exploring the ways gender is negotiated in these spaces is critical to understand challenges women may face in negotiating a masculinized industry.

This is particularly true in terms of their mental wellbeing, defined as a state that encompasses emotional, psychological, and social wellbeing and "enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community" (WHO 2022, Keyes 2014). While there has been attention to how constructs of masculinity may lead men to experience greater mental distress in agriculture (Bryant and Garnham 2014, 2015; Roy et al. 2014, 2017), there has been significantly less research on how constructs of femininity may shape women farmers experiences and stressors in conventional agricultural spaces (but see Bryant 2020; Nichols and Carter 2023; Nichols and Davis 2023).

This study thus works to fill this gap and contribute to a greater understanding of gender and agriculture by asking: *how do women Corn Belt farmers perceive their gender identity and negotiate gender norms in farming, and with what implication for mental wellbeing?* In analyzing interview transcripts with 43 conventional farmers, my analysis highlights how women farmers see themselves as embodying a liminal and fluid set of gendered identities, where they are adept at doing the "work of a man" yet still derive identity from traditionally "feminine"-coded roles such as mother or off-farm worker. Though women suggest the feminized body offers several strategic advantages in the Corn Belt where they can play an "underdog" role and

feel less beholden to the competitive pressures to have high yields or "clean" fields (cf. Peter et al. 2000), some emphasize they have greater stress around negotiating continued expectations of feminine reproductive and care labor. Thus, women farmers insist they occupy a unique social position, neither fully relating with men farmers, nor to farm wives or small-scale horticulture/livestock producers. This liminality instills a special sense of pride among some, but it also can lead to a sense of isolation and mental stress - particularly among younger women who are still trying to "find their place" in production agriculture. I conclude by reflecting on what these particular forms of gendered subjectivity might mean for agriculture and make suggestions for how agencies might better support these types of farmers.

The rest of the paper proceeds in four parts. The following section provides a review of the gender and agriculture literature. This is followed by a description of the research methods and Iowan study site. I then present the empirical analysis. I begin by presenting data detailing the ways women negotiate masculine-coded aspects of agriculture and feminized expectations towards care work, and then highlights the challenges younger women farmers face and how they are more actively reshaping how farming is organized in the Corn Belt and beyond. The paper ends with a conclusion suggesting that more greatly valuing reproductive labor and focusing on gender relations rather than women alone may be a fruitful way to advance gender equity in US agriculture.

Literature review

Since the 1970s rural sociologists have found women identify as farm "helpers" more frequently than farm partners or producers. Researchers theorized that women underplayed their contributions due to both patriarchal structures of land ownership and also normative gender expectations that categorized farming/ ranching as 'masculine' and defined rural femininity through the performance of emotional and domestic labor (Fink 1992; Sachs 1983; Whatmore 1991).

This latter work draws on Butler's (1993) post-structural theories of gender performativity that suggest the binary system of gender (i.e., masculine/feminine matching onto male/female) is not a natural 'given' but socio-culturally defined through discourse, and then embodied (or performed) through everyday practices, routines, repetitions.²

² Butler's notion of performativity is similar to West and Zimmerman's (1987) widely used ethnomethodological concept of "doing gender" through social interaction. While there are nuanced differences between Butler's and West and Zimmerman's approach, such a discussion is beyond the scope of this paper (see Kelan 2010; Nentwich and Kelan 2014).

¹ Women constituted only 4.8% of all primary grain/oilseed operators in 2012 (Hoppe and Korb 2013).

Scholars of gender and agriculture (e.g., Keller 2014; Annes et al. 2020) have focused on the *relationality* of gender by drawing on Schipper’s (2007:94) analysis to assert agriculture is organized by an idealized heterosexual relationship between “hegemonic masculinities” (strong, rugged, independent) that establish patriarchal dominance and “hegemonic femininities” (compliant, unable to use violence) that uphold this gender hierarchy and heteropatriarchal economic order. Within this theorization, heterosexual relations are critical elements that reinforce the binary gender system, where ‘deviations’ from heterosexuality, especially on the farm, can destabilize taken-for-granted notions of how women and men should dress, act, farm and be in relation to one another (Leslie et al. 2019, also Butler 1993).

These discourses of gender, sexuality, and work are deeply entwined with - and reproduced through - economic structures. Here, feminist theories of social reproduction emphasize the cultural normalization of women as *naturally* and freely undertaking both biological and day-to-day forms of reproduction (i.e., cooking, cleaning, emotional labor, skills training) is foundational for capitalist production and accumulation (Dalla Costa and James 1972; Federici 2004; Mitchell et al. 2003). The economic model of the ‘family farm’ (and capitalist production, more broadly) is thus predicated on heteropatriarchy, where women’s compliance with tasks of domesticity invisibly subsidizes agriculture ‘production’ (i.e., crops sold to market) and also produces a labor force (i.e., children) that will continue the business into the future. While feminist scholars argued that social reproduction (i.e., childbearing, care-work) has long been dismissed as ‘real work’ productive of economic ‘value’ (e.g., it is not counted in the national accounting systems), Sachs (1983) made the fundamental point that both farm women’s domesticized ‘reproductive’ labor *and* their on-farm ‘productive’ labor have both been historically invisible amongst academic studies and broader public discourse. Importantly, these idealized heteropatriarchal economic relations embedded in the family farm are underpinned by a symbolic order where “male bodily advantage” serves as the “the paramount symbol of agriculture” (Brandth 2020: 385). The links here are so strong that even work “requiring little physical effort” such as using technology (e.g., driving a tractor) or managerial skills (e.g., making spreadsheets) has continuously been coded as masculine, legitimizing certain bodies in agricultural spaces (Brandth 2020: 385, also Little 2002; Bell et al. 2015).

Yet, these shifts in masculine-coded labor roles (i.e., from physical labor to managerial work) highlights how gender discourses are unstable, and relationally constituted with broader changes in political economies and cultural norms (Brandth 2002). In particular, Brandth (2002) argues while the traditional discourse shaping gender in agriculture was

the “patriarchal family farm” (decisive, strong man farmer and subservient farm wife/helper), this has shifted to both an industrialized “masculinized farm” - where men farmers ‘tame’ nature and women support the capital-intensive farm with off-farm income (Pini 2005b; Saugeres 2002), and also a discourse of “detraditionalization,” where rigid gender norms become more fluid, and women, sexual minorities, and gender non-conforming individuals can fill a plurality of roles. Scholars investigating the “detraditionalized” farm have focused on sustainable or direct-market operations and explored how men and women resist hierarchical gender or sexual relations through carving out “alternative” masculinities or femininities that destabilize the gender binary. For example, individuals create new forms of agriculture centered on ethics of more-than-human care or community (Trauger et al. 2010; Peter et al. 2000; Sachs et al. 2016; Shisler and Sbicca 2019), utilize different embodied strategies to do the physical labor of farm work (Keller 2014; Saugeres 2002; Trauger 2004), take on complex managerial work (Annes et al. 2020), place emphasis on teaching and nurturing new and beginning farmers (Trauger et al. 2010), or ‘queer’ the notion of a heterosexual family unit as the economic engine of agriculture (Leslie et al. 2019; Hoffelmeyer 2020).

While detraditionalization emphasizes an optimistic view of more egalitarian gender relations in farming, others are less sanguine. Scholars note farm tasks remain gendered even as agriculture transforms into more technology-heavy or sustainable production (Pini 2005a), and there is wide variability in the types of work women perform shaped by farm size, type, and location (Annes et al. 2020; Beach 2013; Brandth 2002; Brasier et al. 2014; Wright and Annes 2019). These findings are mirrored in broader studies of women working in male-dominated occupations (e.g., aviation, military, management, extractive industries), which find women often receive fewer opportunities for training in more difficult/complex tasks and are assigned more ‘feminized’ types of work (Germain et al. 2012; Martin and Barnard 2013; O’Shaughnessy and Krogman 2011; Rubin et al. 2019).

The research on women in male-dominated occupations (including agriculture) has opened up broader debates about whether bringing feminized traits into masculine occupations (e.g., caring, nurturing behavior towards crops/animals), or, conversely, adopting masculine traits (e.g., using force/violent behavior towards crops/animals) is more or less ‘subversive’ to gender binaries (Kelan 2010; Pilgeram 2007). These debates have yielded broader reflections on the tensions and slipperiness of gender as a construct, and the limitations of individualizing gender performances rather than seeing it as a relational project that reimagines cultural

and economic valuing of masculine/feminine traits and the ways they interact with one another (c.f. Federici 2004).

This is a critical insight, because when gender performance is individualized to particular bodies *either* subverting gender norms *or* complying with hegemonic gender expectations can be stressful and produce negative effects on mental wellbeing. Put simply: while transgressing gender norms (e.g., by entering male-dominated occupations) can generate social sanctions including discrimination, social exclusion, violence (Rubin et al. 2019), upholding traditional notions of femininity and masculinity can *also* be stressful because (i) both represent discursive ideals that can never be perfectly performed (Butler 1993, 2004), and (ii) because these constructs have material impact on the ways gendered subjects experience and cope with stress (Rosenfield and Mouzon 2013). Broader research on women in male-dominated industries often highlights how organizational policies, cultures, or norms can either deepen or rework gender-related tensions and disparities in the workplace (Rubin et al. 2019), thus agriculture provides a unique context to explore this issue since there are no centralized organizations governing family farm businesses.

Therefore, in agriculture, research has focused more on rural and familial gendered norms, such as how traits associated with hegemonic masculinities (e.g., self-reliance, stoicism) can lead men to reject care for mental distress and feel like their masculine identity is entwined with ‘farm success’³, (Bryant and Garnham 2015; Roy et al. 2014, 2017). While scholars have highlighted the damaging role rigid masculinities play in shaping farmer stress, there is less work on femininities and farm stress (but see Bryant 2020, Nichols and Davis 2023). Some scholars note concomitant impacts on women who may feel stress around caring for her suffering husband or having to bear the brunt of alcoholism or abuse (Bryant and Garnham 2014), yet this is more focused on women as wives rather than primary operators. Moreover, while some argue women have become ‘empowered’ by generating their own income and developing social networks on and off the farm, some research suggests this merely led to a double or triple burden of work, farm, home (Pini 2005b). Qualitative studies of sustainable farmers underscore this point, as Shisler and Sbicca’s (2019) find women farmers feel stressed by having to balance mothering and domestic tasks with farming (also Rissing et al. 2021) and that they still feel excluded from certain farm spaces in ways that reifies their gendered differences (also Keller 2014; Wypler 2019). While this work is

deeply instructive, research on conventional women farmers is important to construct a more holistic theorization of gender and agriculture.

In one of the few studies focused on conventional farmers, Smyth et al. (2018) find that Washington farm women who work in the fields see themselves as more ‘masculine’ whereas women who do bookkeeping/marketing or livestock perceive themselves as more ‘feminine’. The authors draw out implications for women’s mental wellbeing, arguing agricultural women who have a self-perception of being masculine may need to compensate through what Felshin (1974) calls a “feminine apologetic” in overemphasizing feminine aspects of themselves to compensate for their masculinized work (see also Saugeres 2002). They note risks of “gender policing” when women embody too many traits of hegemonic masculinities and suggest agriculture’s “masculinized” coding may mean farming continues to be seen as “off limits” to those not invested in a masculinized identity. While instructive, Smyth et al. note their quantitative approach leaves unanswered questions since their methods did not allow for respondents to express fluidity in their gender identity, nor place gendered relations in their place-based context.

This paper builds on this research by foregrounding post-structural geographic insights emphasizing how gender systems are not universal, but relationally produced across spaces (e.g., rural/urban, home/work) and scales (e.g., home, region, nation), and how gendered subject positions are unfixed and fluid in ways that are shaped by and shape particular places (Little 2002; Little and Leyshon 2003; Little and Panelli 2003; McDowell 1999). For example, Kazyak (2012) looks at expressions of gender and sexuality in the rural Midwest, finding that “female masculinity” (or “butchness”) is accepted and even valued so long as women also comply with heteronormative and domestic expectations. Thus, while women farmers/ranchers may see themselves as “masculine”, it is not clear whether that is especially “deviant” within various rural contexts. Gender norms are also flexible across more intimate scales such as private/public or home/work. For example, Pilgeram (2007) investigates the spatialized ways that women ‘do’ gender in a livestock auction through tracing how gendered mannerisms shift as women navigate between the public auction space and the private corrals. Pilgeram’s work exemplifies how people may perceive their gender and perform it differently depending on the socio-spatial context. That gender is fluid and socio-spatially dynamic is important in analyzing the challenges women farmers may face as they crosscut the blurred boundaries between masculinized agriculture fields and the femininized domestic spheres.

Taking the conceptualization of gender as both discursive and embodied as well as relational and spatio-temporally

³ Importantly “farm success” is also a social discourse, where, for example, Peter et al. (2000) show that men who align with more rigid performances of hegemonic masculinity take pride in productivist agricultural where “good fields” are defined by being clean, free from weeds, and high yielding.

Table 1 States with highest and lowest percentage of women principal operators out of total operations, 2012 USDA census of agriculture (CoA)

Rank	State	Women principal operators (#)	Women as a percentage of total principal operators	Percentage of total acres operated by women (rank*)
1	Arizona	7,835	39.2%	10.7% (8th)
2	Alaska	250	32.8%	no data
3	Massachusetts	2,507	32.3%	18.1% (1st)
4	New Hampshire	1,358	30.9%	16.6% (3rd)
5	Maine	2,381	29.1%	15.9% (4th)
46	Illinois	6,891	9.2%	3.1% (46th)
47	Minnesota	6,370	8.5%	3.5% (45th)
48	Nebraska	4,091	8.2%	4.3% (41st)
49	Iowa	7,108	8.0%	2.8% (48th)
50	South Dakota	2,333	7.3%	4.1% (42nd)

Data source: USDA Census of Agriculture, 2012. Tables 1 and 57. https://agcensus.library.cornell.edu/census_parts/2012-united-states/. Accessed 01 Dec 2023. Bold = Study site

Table 2 Primary operators in Iowa, by gender, 1982–2012 USDA CoA

	Men (% of total)	Women (% of total)	Total
1982	112,456 (97.4%)	2,957 (2.6%)	115,413
1987	101,838 (96.8%)	3,342 (3.2%)	105,180
1992	92,730 (96.1%)	3,813 (3.9%)	96,543
1997	86,174 (94.9%)	4,618 (5.1%)	90,792
2002	84,451 (93.2%)	6,204 (6.8%)	90,655
2007	84,404 (90.9%)	8,452 (9.1%)	92,856
2012	81,529 (92.0%)	7,108 (8.0%)	88,637

Data source: USDA Census of Agriculture 1982–2012. <https://agcensus.library.cornell.edu/> Accessed 01 Dec 2023

fluid, this paper works to examine how women negotiate gender in the Corn Belt. As women continue to become more visible in US agriculture, it is critical to not just understand how they negotiate gender norms, but the implications this has for their mental wellbeing.

Methodology and study site

The majority of study participants resided in Iowa, which lies at the heart of the US Corn Belt and frequently leads the country in corn, soy, hog, and egg production (USDA 2021). It represents an interesting site to study women farmers because while nationally, the Iowa women farming population is large in absolute number, within the state they have only a marginal presence vis-à-vis men. In 2012, (the last year that USDA counted only one primary producer per farm⁴), Iowa ranked 15th nationally in terms of absolute number of primary producers (7,108) yet ranked second to last in terms of the proportion of women-run operations

⁴ It is critical to note that in 2017 the USDA changed its methodology to allow farms to list four primary producers per farm, which led to a rapid “explosion” in the number of women primary producers (7108 women farmers in Iowa in 2012 to over 29,000 in 2017). While this change may allow for better accounting of actual on-farm effort, it makes any longitudinal comparisons impossible (see Pilgeram et al. 2020 for excellent overview).

relative to men-run ones (only 8.0% of operations, which accounted for 2.6% of cropped acres, see Table 1). Iowa is representative of Midwest states, which are all farming intensive, and all have some of the lowest proportions of women-run operations.

However, USDA data does show the *relative* presence of women farmers in Iowa is growing, with the male farming population shrinking by nearly 25,000 since the early 1980s, and women’s numbers increasing by over 4,000 (see Table 2). As more markets for locally sourced foods developed in the 1990s and 2000s, the number of total women farmers more than doubled. Yet while the relative number of Iowa’s women primary operators increased by 6% between 1982 and 2012, within oilseed/grain farming their increase was a meager 1%. Iowan women oilseed/grain farmers have thus seen a relative decline with the boom in small-scale, sustainable direct-market operations, where more scholarly attention has been directed (e.g., Rissing 2016; Rissing 2019).

Given that as of 2012 the women farming population has been on a slow but steady ascent, Iowa is a critical but overlooked site to examine how gender relations shape women producers’ experiences. Moreover, these demographic trends are expected to continue as the age structure of the Iowa farming population shows that farmers are getting older but that as women outlive men their numbers are also increasing.

Methodology

The data for this paper comes from a mixed-methods study examining drivers of women farmers’ occupational stress in Iowa. I interviewed 43 women who operated grain/oilseed and/or conventional livestock operations. Twelve participants were recruited via advertisements across the Iowa Women in Agriculture, Iowa Farm Bureau, and Practical Farmers of Iowa listservs and interviewed in July/August 2020. The remaining women were recruited after they

Table 3 Respondent characteristics ($n=43$)

Age	
< 45	19%
45–54	14%
55–64	53%
65+	14%
Average age	55 (min: 34, max 75)
Education	
High school	7%
Some College	16%
College	58%
Post Grad	19%
Marital status	
Unmarried	12%
Married	49%
Divorced	16%
Widowed	23%
Days worked off farm in 2019	
No days	23%
1–49	16%
50–99	9%
100–199	7%
200+ days	44%

Table 4 Respondent farm operation characteristics

Farm size ($n=43$)	
< 10 acres	2%
10–49	5%
50–179	10%
180–499	24%
500–999	29%
1000+ acres	34%
Production type (can overlap)	
Corn/soybean	91%
Hay/alfalfa	23%
Hogs	23%
Cattle	16%
Sheep/goats	7%
Dairy	5%

completed a mailout survey administered in the winter of 2020–21 that was specifically focused on women farmers⁵. Over 150 survey respondents indicated they were potentially interested in an interview and efforts were made to contact all of them for interviews in April–August 2021. However, a majority were either unreachable via the provided contact information or declined the interview due to scheduling conflicts or lack of interest. There is thus self-selection bias in that respondents all had available time

⁵ The survey invitation specified “women farmers” and did not explicitly mention non-binary or gender non-conforming farmers. We did not distinguish between cis and trans-gender women nor did we ask questions about this in the survey or interview.

and a strong interest to comment on the issues of stress and farming. Table 3 reports basic information on respondent characteristics.

I conducted semi-structured interviews via telephone that queried respondents on their background in agriculture, their farm, and experiences of stress. Notably, while there was not a “gender-specific” question until the final third of the interview when I asked if they felt stress different from men farmers, nearly every respondent voluntarily spoke to gendered dynamics when discussing their background and current activities. The women respondents represented a diverse range of farm sizes (see Table 4). They self-identified either as the primary producers (60%) a farm partner (28%), or an active landowner (22%) making management decisions. The majority (91%) grew corn and soybean, though nearly 50% also had livestock (hogs, beef or dairy cattle, or sheep) on their operation. Most women ($n=41$) were from multi-generational farming families and only two women identified as first-generation farmers. The majority of respondents owned rather than rented farmland, which reflects the “legacy” dynamic of agriculture where land is often prohibitively expensive for first-generation farmers.

This study is limited because the sample is almost entirely white women. While this racial composition reflects the Iowan farming population, which is 99.8% white (NASS 2017), it is important to note there are different barriers and enablers for farming success for Black, Indigenous, Latina, and other women farmers of Color (Burchfield et al. 2022, Horst and Marion 2019, Pilgeram et al. 2022). Gender norms in farming may vary across social contexts, thus results should not extrapolated to represent the experience of all farmers. This research was not explicitly focused on sexuality and questions on sexual orientation were not included.

The interviews were transcribed and uploaded to MAX-QDA data analysis software. I used a two-stage inductive coding technique where I first read the data completely, taking notes on emergent themes (Saldana 2011). I then used first-round coding to parcel the data into segments based on the overall content being discussed (e.g., gender relations, markets), and created subcodes to flesh out the variability in women’s perspectives on how they perceive their gender identity and negotiate gender in Corn Belt conventional agriculture.

Findings

In this section, I outline the ways women embraced “masculine” aspects of farming, while also performing feminized roles like mother or teacher. I argue that while women feel having the “skills of a man in a women’s body” gives them

certain advantages in farming, it also leads to complex feelings around not fulfilling feminized expectations of social reproduction. I point to the ways this places women in a position where they neither fully relate to men farmers or women farm wives, but nonetheless feel pride in their farming identity. Finally, I highlight how this liminal position presents special challenges to younger women still trying to “find their place” in Corn Belt agriculture, but also foretells opportunities since younger women are more critical of socialized gendered expectations.

Being a woman with the skills of a man

Of the 41 respondents who grew up on farms, those who identified as principal producers reported they had always been engaged in agriculture and actively helped their fathers – either out of necessity or because they enjoyed agriculture.

I was born on the farm and grew up helping my father. We didn't have any brothers, so I could get out of doing dishes if I go help dad in the field. (Jeanine)

Jeanine goes on to describe how while she helped her dad with everything, even after she left the farm she would get called back for farrowing because of her “long arms”. Yet, while other women reported that they were called on for particularly gendered tasks such as birthing animals (Cheryl; Leslie), others reported being raised to do everything. Rachel explained,

My dad raised us to work. He didn't have any boys. There was four girls and we all worked. The only pieces of equipment Dad didn't let us run was the hay conditioner and the planter...we ran everything else.

For families without sons, the necessity of agricultural labor seemed to outweigh conventional narratives about appropriately gendered labor. One woman dryly recalled her very conservative “old-school” father “believed that girls didn't have to do anything until he was desperate and needed me to do stuff” so she grew up not playing sports in the fall because she was needed to drive the tractors (Lise). Yet, other women said they did grow up with brothers but were still drawn to the tractors and outdoors. One 62-year-old corn/soy farmer, Mary (who also had a brother), said,

I was always interested in agriculture. From before I went to school, I was the kid that wanted to go outside and tear loose in the tractor or help in the field...My father was kind of ahead of his time...and he thought it was fine that I wanted to do field work, drive the tractor into fields.

As aged 60+ farmers, both Mary and Jeanine left the farm during the 1980s but stayed involved in the farm, always planning to return. For women raised on the farm, many felt that they had come to occupy a unique spot in the gender spectrum, with many identifying as mothers or office secretaries and also seasoned farmers, mechanics, and livestock handlers. One 60-year-old woman operator, Lori, who farmed several thousand acres with her brother, sons, and mother boasted:

I'm the type of girl that still is girly. I mean, today I have hair extensions, and my fingernails done and I'm that person. I've always enjoyed being a woman with the skills of a man. I mean, I still I bake and I have Christmas at my house and I put up a Christmas tree, but I mean, I do all that after we've got crop out.

Nearly every older (60+) respondent seemed to embrace the flexibility of occupying multiple gender identities⁶. Penny had been farming around 750 acres of mostly rented ground by herself since her husband died a decade earlier. She embraced the masculine aspects of farming, boasting her favorite thing about farming was tractor racing with her grandkids and that she “loved the smell of diesel.” She proudly recalled how her men neighbors tell her “You are the hardest working woman we have ever known”. I asked how she responds, and she giggled and said in a coy Southern Midwest twang “I tell them ‘Well, your women must not know how to work ‘cause I'm just out there playing.’” Throughout Penny's interview she maintained a girlish laugh between sentences yet was not at all shy about professing her love for tractors and her unrealistic desires for the biggest combines.

Indeed, the notion that women's bodies were not cut out to do the physical labor of farming, or that participating in it subtracted from their femininity, was not something older respondents expressed. Rather, many women argued the mechanized landscape of Corn Belt agriculture meant anyone could be a farmer. Heidi explained:

It's been a man-dominated field, and it was a lot because of the labor. I mean, back in the 1800s, it was really labor-intensive; men were stronger, he could control the horses or whatnot. And women, you know, women had more responsibilities in the house. Well, it's not that way anymore...a woman could drive a tractor just as good as a guy can.

⁶ In this paper I refer to “older woman” as those who are 60+ years and “younger woman” as less than 60 years. As of 2017, the average age of an Iowa woman farmer was 58.2 (NASS 2017).

Other women chimed in that women and men were theoretically equal in their ability to farm because as “this day and age farming is like everything else - you push a button or sit on a seat. You know, it isn’t as much manual labor as it was 60–70 years ago, so women can handle it” (Judy). Lori—the self-proclaimed “girly girl” also protested:

There’s a lot of misconception about what an actual person is that farms. I don’t call myself a farm wife, or farm woman, I call myself a farmer.... My sons are 120, 130 pounds, they’re not huge men. That’s a misconception it takes a big man to farm and it doesn’t. There’s a lot of mechanical ways to get everything done nowadays. You don’t need to have extra muscles to get it done.

Yet, while some argued women’s bodies were equally adept at farming row crops, others felt they were at a disadvantage but with effort they could prevail. For example, Leslie, widowed early, complained she sometimes struggled to do certain tasks like attach tractor implements because she “wasn’t strong enough” or “didn’t know how”. But, she exhorted, “my daughter in law taught me how to look things up on YouTube. And there’s so many things you can learn” and that when she does run into a problem and successfully navigates it “it’s just euphoria, satisfaction”. Similarly, Darlene, a woman in her 50s who farms family land solo after her father died and she divorced her husband, summarized:

Tools are designed for a man’s hand, which are larger than mine, and I sometimes have to come up with alternative ways to do something that requires more strength than I have. Some things just take me longer. Many days it has been, “where there is a will, there is a way.”

Thus, women largely believed women’s bodies were capable as farmers, and that while the equipment continued to be designed for men’s bodies, they were able to adapt to get the job done. Through these comments, it was clear women viewed the farming-masculinity association as a social construct or discourse rather than a biological fact.

Farming without the “testosterone factor”: how women farmers differentiated themselves from men

Yet while women expressed they could farm just as well as men, they also suggested their feminized bodies and their gendered identities led them to have a different orientation to farming, and to be perceived differently by outsiders. For example, one row crop farmer, Alice, proudly defined herself by declaring “my husband doesn’t farm and he’s never

driven the combine.” However, as soon as I ask her about her biggest stressor, she quickly pivots from her farmer identity to that of a mother, saying,

Stress for me, I mean, as a mom, you want to make your kids happy. That’s my biggest concern.... And I hear that whenever we talk; I was at a women’s conference once and they said, what’s the biggest thing you women want. And everybody in unison is make sure your children are happy. And that’s just, that’s how we’re wired.

Alice, then used the fact that she had multiple identities beyond mere farmer to differentiate herself from her neighbor men farmers saying, “Now, are guys wired like that? Ohhh he’lll noo, you know, they are more concerned with who has the bigger tractor of the neighbors”. Thus, while many women defined themselves by their ‘hands-on’ approach to farming that was no different from men, they also differentiated themselves from men by emphasizing they have identities across multiple spaces – coded both ‘feminine’ and ‘masculine’. Alice’s seamless pivot from talking about farming to motherhood exemplified how many of these women navigated multiple identities, with different gendered expectations. While many women felt comfortable driving the combine, the majority also held traditionally ‘feminine’-coded off-farm jobs like secretary or teacher and/or embraced their mother identity.

A second core way women differentiated themselves from men was asserting that men were more competitive than women and had greater ego investment in annual yields or field appearance. Lise said that most men her age were born to believe they were the smartest thing in the world, whereas she was told what she is doing is good enough because she is a girl. She that because of this, she did not feel much internalized pressure to succeed. Several other women argued their feminine presence gave them a certain advantage in that they were not expected to compete with men in the competitive landscape of production agriculture. For example, Darlene said when her father passed, he still had very old equipment that she knew how to repair and operate so she thought “why not”? According to her, her no-frills approach to farming may have been more difficult if she were a man.

I drive old equipment. As a man this would be more difficult because of the “testosterone factor”. They are always in competition to see who can have the largest and latest equipment. I remember driving by huge, monogrammed equipment feeling quite small. However, the next year, that operation was no longer in business. So now, I just smile and wave as I pass them.

I believe this would feel different if I was a man but that is just my opinion.

Multiple women argued they were happy to not have this expectation for them to have the highest yields or the best-looking fields and it gave them some latitude to focus on profit or viability (e.g., through using less nitrogen or driving old equipment) rather than their reputation (see also Newsome 2020). Another woman, Penny also operated very old equipment and said she often got strange looks as she took it down the shoulder of the highway but she too, took the “smile and wave” philosophy, laughingly saying, “seriously my logic is smile and wave and keep going.”

However, though many women felt they could farm just as well as men, they said in practice their feminine body meant they were not automatically respected as farmers. While the exclusion women felt as conventional farmers varied based on their marital status and farming background and goes beyond this paper’s focus (see Nichols and Carter 2023), women who farmed larger tracts of land reported facing social sanctions. For example, while Lori feels she can farm just as good as any man, she says her gender makes her an outsider.

Men have a little bit different time as farmers, you know, they can go to the elevator and sit. As a woman, you can’t go to the elevator and sit. Well, basically, they’ll get up and leave.

While Lori said this purposeful exclusion led to loneliness as times, she also felt it gave her a strategic advantage in that she could go “incognito” in spaces like land auctions and maybe that was a good thing.

Finally, respondents also expressed while they *could* drive a tractor as well as any man, they did not need to do so to call themselves a farmer. Several women argued that successful farmers in the 21st century did not *need* to drive a tractor but had to be financially shrewd and resourceful, which women felt especially skilled at. This was evidenced by the women whose husbands deceased unexpectedly yet felt confident in asserting themselves as farmers – even if they contracted custom operators to do field work. For example, Allison had co-farmed with her husbands and in-laws on a mix of independently owned and family ground when her husband suddenly died. Allison had worked in the agriculture economy and felt confident to take over the operation, though admitted she doesn’t drive the combine “because that just isn’t my thing”. She realized it would be more profitable for her to sell the equipment and have her land custom-farmed, where she pays for all the inputs and makes all management decisions. Allison did not perform any masculine-coded work, yet claimed the identity

of farmer, and situated herself as one of the most financially competent farmers she knew. Similarly, Lise, a row crop farmer whose husband suddenly passed away said she had no problem taking over the operation with her daughters. While some colleagues expected her to sell the farm after her husband’s death, she exasperatedly explained

I wasn’t planning on quitting [farming] because I’ll be totally honest - the labor in the field is the least of my worries. I can always hire someone to do the field work...that’s the easiest to replace. The financial end, finding someone that will know what’s going on and be able to do the work - it is just the more expensive part and there I was fine.

Thus, although Lise also raced tractors with her daughters and fully embraced all tasks in farm life, she too positioned financial skills and marketing ability as the more important skill than getting the crop in and out of the ground in the 21st century Corn Belt. Thus, though research aligns agri-managerialism with masculinities (e.g., Bell et al. 2015), women did not feel intimidated by the business of farming, but rather that they were poised to excel in it.

“The annual dusting”: negotiating gendered expectations

While women largely did not express stress or uneasiness around performing “masculinized” work, they did have more complex feelings towards traditionally feminine-coded labor. For example, Joanne, also in her 60s said she had never felt very feminine:

I was kind of a tomboy. I felt that I would probably get along with [men] farmers more than then would a lot of women, because, I don’t know how to describe it, but I don’t talk about feelings, I don’t talk about sewing, I don’t like to cook. And then I feel like I need a housewife to help me with my house. I’m more like a man that way.

Within Joanne’s response there was a sense she was divulging a secret. While women were able to embrace the masculine parts of farming, they spoke with greater trepidation when they discussed either their aversion to feminized social reproductive tasks or their imperfection at completing them.

Moreover, while some enjoyed doing feminized domestic labor, they felt uncomfortable in not meeting these gendered expectations perfectly. For example, Karen says that sometimes she feels like there is a double standard because “I’m out busy bottle-feeding calves, so what gets neglected? The house gets neglected, and that doesn’t always bother

everybody [i.e., her husband], but you know, and they would say it probably doesn't bother me, but it does get to a point where it bothers me." I ask her if she is the one who always has to do something about it and she responds with classic Midwest self-deprecation saying, "yeah standing joke here is you know, I'm gonna do my annual dusting!". Leslie, a widow, says she sometimes feels uncomfortable because she knows her house usually stays messy, but thinks "you know, if I was the one that died and my husband would be here, nobody would think twice about that. [They'd think] oh, yeah, you know he doesn't have a wife, so the house is messy." Another woman, Cheryl, pointed to the emotional labor often expected of Midwest women, saying,

a lot of women are programmed to be, you know, happy and I'll make you happy. That's disgusting to me. I think especially women in the Midwest are like this, because we're still a bit traditional in a lot of roles, even though you know, a lot of women are out there, doing the cattle thing and doing crops.

Interestingly, immediately after saying that this type of behavior disgusts her, Cheryl reflects that though she is not "that way intrinsically" she had assumed that role to a certain degree with her husband and son in mediating minor conflicts on the farm. These women's narratives reiterate the complexities of navigating the gendered expectations of being a woman in a masculine-coded industry. There was a sense in all their voices that they were hesitant to completely foreclose on their traditional gendered responsibilities but that they were ever so slightly attempting to critique them.

We are farmers, not "women in agriculture"

Relatedly, several also reported having a difficult time connecting with groups designed for "women in agriculture", which they perceived to be dominated by traditional "farm wives" rather than primary farmers or catered towards diversified vegetable/livestock farmers. For example, Alice says she must watch herself when she spends time with farm women

I remember one cattlemen banquet or something, and [the women] were complaining about certain livestock and their husband, and I go, 'but let me just say a word for your husband', and they turn to me and say, go awaaaaay....

Several other respondents discussed how they had to be careful to not demean farm women not as involved in fieldwork or crop decision-making. Penny discussed how involved she was at her granddaughter's school but that it could be

frustrating when the other mothers tried to schedule around agricultural seasons but did not know what they were talking about. She then said "none of them [the women] really know" but that she had learned that she needed to not discuss farming or correct them in condescending ways. Alice reflected someone once told her that she speaks the 'language of farmer', whereas farm wives do not so she needs to be mindful of this and instead talks about kids or clothes. While Alice emphasized that they could connect as mothers, she goes on in the interview to chide a familiar form of "farm wife" resistance – hiding purchases or money from the primary breadwinner – by noting her household has a much different division of labor and finance.

Other interviewees similarly distanced themselves from stereotypical 'farm wife' tropes and emphasized how different they were from other farm women. These respondents often had mixed feelings towards "women in agriculture" spaces focused on gendered tasks like bookkeeping or transition planning which they critiqued for not also focusing on crop management or chemical programs. Some suggested these spaces could feel exclusionary, for example Becky – who is single and farms with her father stated her women in agriculture group was dominated by self-identified farm wives who always scheduled meetings that conflicted with agricultural work, leaving her frustrated and often unable to fully participate. Mary also expressed resentment for "women in agriculture" groups hinting she also did not feel entirely included there

[For "women involved in agriculture"] I affectionately tongue-in-cheek make a joke of, do you know what the three numbers in the fertilizer mean? And where's the growing point on corn and soybeans? You have to be *involved* to be knowledgeable. So, some of these women who say they're involved in agriculture. I didn't really feel that way. I don't really feel like they are. But that's none of my business. So, whatever, if Farm Bureau and Extension wants to be warm and fuzzy, and have a little marketing meeting to teach these women how to market, then so be it.

Mary – who was divorced - differentiated herself from these women by emphasizing "I'm totally on my own. I don't have anybody, so everything is my decision solely". Like many respondents, Mary had worked in several feminine-coded occupations (notably teacher) that she spoke fondly of and where she had derived close women friends, yet she does not feel like she fits in spaces specifically for "women in agriculture" since she is the principal operator on a conventional operation (i.e. not a farm wife/widow or sustainable/diversified farmer). Others who participated in the women-focused educational program, "Annie's Project",

had mixed reviews, saying it was mostly for farm wives who knew little about crop/livestock management, yet also said they enjoyed meeting others and serving as an “interpreter” (see Trauger et al. 2008). Thus, some women had become adept occupying a unique – almost liminal – gendered identity where they could “code-shift” between talking farm with the men and talking with the women. Yet this liminal space often meant that women had a sense of being “above” other farm women (e.g., in chiding “farm wives” forms of resistance and limited engagement in agriculture), yet also differentiated themselves from men farmers (e.g., in being “girly” and having double expectations).

Indeed, the 60% of women who identified as principal producer stressed they were in the vast minority. They invariably ended interviews claiming I would not find other women like them, and while there may be some women “on USDA forms” (e.g., due to farm subsidy caps) or doing small scale farming, they are not in the field “running the show”. While the lack of other women row crop farmers seemed to give older woman a special sense of identity that they used to carve out a space uniquely distinct from both “feminine” and “masculine”, they also discussed how it could be isolating or intimidating. We see such sentiments more acutely among younger women just beginning to navigate how to manage feminized expectations while being a farmer.

‘We need to find you a nice farmer boy’: younger women negotiating the heteropatriarchal landscape of production agriculture

Feelings of isolation from both feminized and masculinized spaces were especially true for some younger, single, or divorced women, and particularly around marriage and childbearing. For example, Kelly – a young single woman in the process of transitioning to farm her parent’s 200-acres said she felt intimidated in agricultural spaces,

I guess, most of my friends I know, that are in agriculture are male or have a husband, who is actively involved. So...I don’t feel like I have a lot of counterparts that I know personally, who are in a similar situation. It would be nice to know that there are other women out there like me, who are trying to carry on a family farm with aging parents and no partner.

As a single woman Kelly went on to say she was scared she would not fit in with women in farming culture more broadly explaining, “I was raised Christian and everything, but I don’t really I don’t go to church anymore. I don’t really care if people do. Sometimes I don’t feel like I fit in”. Tellingly, Kelly conflated a Christian heterosexual family as central to being accepted into farming culture and expressed

concern because she did not aspire to that ideal. At many points in the interview, she signaled the different ways this message was communicated. For example, she explained:

My friend from college, she’s so sweet, but she’s pretty religious... And she commented ‘we need to find you a nice farmer boy’. And I’m like, I appreciate where you’re coming from and where you’re trying to go with that, but believe me, let’s not focus on that and just be supportive in other ways. It is not all about, you know, I don’t know, this is us and our 2.5 kids and our Labrador Retriever.

Kelly worked full time in a city an hour from the farm, where she came every weekend. She said that while she knew she needed to move full-time to the farm if she really wanted start new projects, she needed the health insurance her job provided and was worried about moving from the diverse urban area she had come to enjoy. The farm’s politically conservative climate – which included traditional notions of gender and marriage – dissuaded her from moving. Kelly said she struggled because she did not have the desire to have children, thus had developed a canned “response” to this perennial question by enumerating her nephews that may be interested in farming. Kelly clearly felt a stigma in rural Iowa as a woman without a partner or children, and thus it was not the “masculine” aspects of farming that deterred her from taking over the farm, but rather concern she was not upholding heteronormative and domestic ideals of rurality. There were three other older women without immediate heirs who similarly discussed the discomfort of navigating the “farm transition” question when they worked with lawyers or tax people, who they felt could be quite rude.

Other younger women communicated the challenges of trying to maintain the farmer identity while also fulfilling roles around reproduction. Most pointedly were women working to be hands-on farmers while also being mothers. Susan, a 40-year-old, recalled how she had returned to the farm she grew up on in her mid-30s to assist her father and eventually take it over. She said they worked well together for the first years and then she got pregnant. While her father was happy for her, he “freaked out” thinking how it might impact the farm since Susan was the only other laborer. She recalled,

That was a stressful time because I wanted to be a farmer, but I was pregnant, and to be pregnant and work with big machinery, loud vibrating machines, sitting on a combine when you’re eight months pregnant - it’s very uncomfortable. It was difficult, but my dad never pushed me; I pushed myself because, I didn’t want to seem I don’t want to say the word, but weak. I

wanted to prove that a woman can carry children and do this kind of work. I probably lifted things I probably shouldn't have. I kind of pushed myself because I wanted to prove that I could do it.

Susan's narrative is telling in her desire to overcome physical, gendered limitations that come with carrying children and to prove that women – even pregnant ones – can farm. Diane, a dairy farmer, told a similar story saying she worked intensively when she was pregnant mostly “because I didn't want to admit that I couldn't do as much”. This speaks to the need to take a life-course approach when considering women farmers and how their gender shapes their experience of rural agriculture. Older women who spoke about their ease and comfort being women farmers themselves discussed how their lives were not stressful like they had been when they had young children or were early in their farming career trying to prove themselves like Susan (see Rissing et al. 2021).

Moreover, while some older respondents spoke about gender using the language of biological difference (e.g., wired that way, programmed that way, ‘testosterone factor’), the younger farmers tended to see these expectations as socially produced or discursive. One woman relates how years ago an older woman farmer told her that “she felt like she had spent a lifetime trying to be the best farmer that she could, and also trying to be the best farmer's wife that she could, and that she never felt like she did a good job of doing either”. She says this “stuck with her” and her takeaway was that it was about “managing your own expectations for yourself”.

Thus, many of the younger women respondents were keen to explore other farming models that went beyond a family farm so they could more equitably divide labor. It was illuminating that these women were less concerned with being able to “do” the masculine work of farming and what that said about their gender identity, but instead felt that the doubled expectations of care work alongside farming was not something that could be sustainably pursued. This has important implications for thinking about the future of agricultural operations, particularly given the growing participation of women and the aging farming base.

Discussion and conclusion

This paper extends the literature on gender and agriculture by focusing on how an under-researched group - women conventional row crop or livestock producers - perceive their gender and the ways it shapes their experiences in farming spaces. My main argument is twofold: first, while women feel they can do the work of modern row crop

farming without detracting from their femininity, they differentiate themselves from both men farmers or farm wives in core ways, and present an almost liminal gender identity, where they are unable to fully relate to either men farmers or farm wives. While this liminal identity seems to invoke pride among older woman, it produces greater stress for younger woman still trying to find their way. Second, I find that while women are largely unconcerned about doing masculine-coded labor they express greater stress around societal expectations for them to fulfill their feminized social reproductive roles. Each of these findings has important implications for the literature on gender and agriculture and also service providers tasked with supporting farmers.

When performing “masculine” farm labor women say themselves as equally capable, yet differentiated their farming approach in interesting, sometimes surprising, ways. First, they identify with feminine-coded identities (e.g., mother/teacher) to suggest their identity investments go beyond their farm field, whereas they indicate men are more concerned with their reputation as farmers (rather than, say, fathers)⁷. Women suggest their feminized presence allows them to take an “underdog” position and do things like drive old equipment, which they feel would compromise a man's ego in the competitive Corn Belt. Thus, while they felt external actors did not take them seriously as farmers until they proved themselves (Nichols and Carter 2023), they seemed to feel a certain freedom in evading the trappings of hegemonic masculinity. According to Schipper (2007) a hegemonic femininity is one that is compliant and non-aggressive, thus by taking the ‘smile and wave’ strategy while performing ‘masculinized’ work women can continue to subvert normative gendered expectations in ways that do not necessarily threaten patriarchal dominance. Annes et al. (2020) finds that women “commodify” aspects of femininity to position themselves in sustainable and value-added agricultural markets, yet it is noteworthy these conventional farmers do not so much commodify femininity but use it strategically to maneuver through the competitive world of production agriculture.

That women said they could practice a no-frills approach to farming because they have less identity investments in their agricultural reputation invokes larger debates around whether women farm differently (e.g., small-scale, direct-to-consumer) because of gender identity or because they face discrimination and are thus unable to access capital to compete with the big (men) farmers (Ball 2020; Fremstad and Paul 2021). This study suggests that women largely positioned their tendency to farm more conservatively (i.e.,

⁷ This insight is based on women's perceptions of the differences they have with men farmers, thus interviews with men farmers about their relative identity investments would be needed to affirm or refute this speculation.

taking on less debt for new equipment, land, or more inputs) out of their own choice (rather than financial necessity) and felt they didn't have the pressures to comply with rural hegemonic masculinity that privileges the highest yields and biggest combines (cf. Peter et al. 2000). It is important to note most women did not indicate they made these choices out of environmental concern but because they were unmoved by cultures of competition and more greatly valued conservative financial management to maintain farm viability (see also Newsome 2020). Future research that continues to unravel men, women, and non-binary farmers' multiple, overlapping identity investments may have important implications for better understanding how farmers make decisions on their field or how farm appearance impacts their mental wellbeing or sense of self-worth.

Yet while women did not feel beholden to rural constructions of hegemonic masculinity, they expressed more social stress for not meeting societal expectations around heteronormativity or feminine domesticity. This aligns with Kazyak's (2012) finding that suggests female masculinity is a gendered norm in rural Midwest *so long as* commitments to heterosexuality and domestic responsibility are upheld. As the economic form of the family farm is predicated on feminized generational and everyday forms of social reproduction, it seems these gendered norms are less relenting. Thus, while there is space for women to perform masculinized labor, they felt more anxiety around being either unwilling or unable to meet feminized expectations around child rearing and domesticity. Kazyak (2012: 833) argues that expressions of rural female masculinity are not in themselves constitutive of alternative femininities because they do not challenge heteropatriarchal systems of economic/political domination but rather solidify the conflation of rurality with masculinity. The data here supports Kazyak's assertion in that when women, such as Joanne, express disdain for feminized care work (cooking, cleaning) there is shame such as when men fail to align themselves with images of hegemonic masculinities.

Critically, younger women expressed more stress in navigating the farming landscape of the Corn Belt than older women. Building on work looking at how sexuality shapes farmer identity (Leslie et al. 2019), younger, unmarried or childless women felt stress in not identifying with either farm wives or male farmers. They largely conflated Christian heteronormativity with farming culture and felt intimidated to try to find their way. Similarly, women in their reproductive years who are also just entering agriculture expressed added pressure to prove that they could do the work of farming, even while pregnant or nursing. Thus, while older women tended to feel like they occupied a unique spot because they were 'good' (child-rearing) women doing men's work, younger women still trying to “find their spot” in the world

of production agriculture expressed greater stress about the lack of support and relative isolation. While Rissing et al. (2021) find the need for more support for women who are balancing farming and children, this data also suggests the need to better understand the social implications women farmers without children, particularly on family operations.

These findings speak to classic feminist arguments that the valorization of housework and care-work is central to women's emancipation, rather than their mere “empowerment” to enter industries previously reserved for males (Dalla Costa and James 1972; Federici 2004; Mitchell et al. 2003). There is a slipperiness when gender equality is guided by logics of “including women” into masculine-coded spaces of production (e.g., the field, factory, or boardroom) rather than questioning the persistent constructions of women's domestic and care labor as *natural, biological* and thus less value-producing than ‘men's work’ that is coded as complex, skilled, and value-producing, thereby more compensable (Federici 2004; also Cornwall and Rivas 2015 for excellent global perspective). While women may feel adept at doing masculine-coded productive labor, their inclusion in this space seems contingent on their continued compliance with performing social reproductive work, leading to not just a “double burden” but anxiety and shame if they don't comply satisfactorily. While other literature on women in male-dominated occupations tend to focus on how organizational policy, supervisorial practice, or work culture might shift to facilitate more just gender relations in the workplace through tactics like family-friendly scheduling, mentoring, or creating work cultures that foster a sense of belonging (e.g., Bridges et al. 2023), the family farm is unique as an economic organizational form centered on a heteropatriarchal family. The study findings, thus, have important implications for agencies tasked with supporting farmers as well as researchers focused on questions of gender and agriculture.

For one, it is important to not homogenize women in agriculture (see Trauger et al. 2008). Respondents expressed frustration that “women-focused” agriculture programs were often for either marketing or estate planning or for horticulture/small livestock production. While “women in agriculture” groups may serve an important role in uplifting the importance of traditionally gendered farming tasks such as bookkeeping, the respondents largely did not feel these programs met their needs. Since most respondents also claimed there were few women like them, there could be positive social benefits from enabling networking among active women farm operators and help to facilitate a greater sense of belonging in agriculture, a core element of social wellbeing (WHO 2022). Such forms of social support and mentorship may be especially meaningful to younger woman.

Second, it is critical that women often felt more stressed about not fulfilling traditionally feminized work forms than they did about feeling “too masculine” because they did physical farm labor. This suggests the need to move beyond individual women-focused outreach to address rural gender norms more holistically using a life-course perspective. For women who feel overwhelmed with a “double burden” of keeping their homes spotless and their crops in good shape, some recognized that unless they changed their expectations for themselves, they would not be able to maintain their occupational arrangement. Work in global contexts has grappled with this precise problem of how focusing on “women” rather than on reworking gendered scripts and relations can have the inadvertent impact of simply producing *more* labor for women (e.g., Asadullah and Kambhampati 2021; Cornwall and Rivas 2015; Malapit 2019). Many of these programs are also explicitly intersectional, recognizing women are not homogenous and thus it is necessary to confront other forms of domination based on everything from race to age to sexuality (Thompson-Hall et al. 2016). Agriculture extension programs in high-income countries, thus, could take a cue from the international agricultural programs to address gender relations more holistically rather than make special forums intended for women alone. Such an approach of focusing on both men and women along with the gendered relations and expectations that they negotiate may be particularly salient for younger woman who are more attuned to gender as a socially constructed, and reworkable system of relations.

In conclusion, this study points to how occupation-derived gender self-perceptions are but one component of how women construct their identities. Because farming is enmeshed in everyday lives that include cleaning, cooking, and providing all sorts of care, women’s gendered identities remain flexible across social spaces beyond the farm field (cf., McDowell 1999). While this study points to positive and negative implications of women gender negotiations in the Corn Belt, it is critical to reemphasize that racial and ethnic homogeneity of the sample. Understanding how gender is negotiated in more racially and ethnically diverse parts of the US would continue to better illuminate how social constructions of gender and sexuality operate (Hofelmeier 2021) and highlight divergences and similarities that can lead to more inclusive alliances that expand the public imagination of what farming entails in 21st century agriculture.

Acknowledgements I thank the anonymous reviewers for their detailed and constructive comments as well as the editorial support from Matthew Sanderson. Additionally, I would like to thank Angie Carter, Nicolena von Hedemann, Shelby Smith, and Noah Silber-Coats for constructive feedback. Many thanks to Charlotte Lenkaitis for her excellent research assistance as well as support from Nathan Fethke and Diane Rohlman and the Healthier Workforce Center of the

Midwest. I am also grateful for assistance from Practical Farmers of Iowa, Iowa Women in Agriculture, and the Women, Food, and Agriculture Network for letting me use their listserv to help with participant recruitment. Finally, many thanks to all of the research participants for taking time to share their experiences with me; I hope I have done them justice. All errors rest with the author.

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Dr. Carly E. Nichols is a human geographer who conducts qualitative, feminist research on how agricultural development and agrarian change shape environmental, sociocultural, and political relations. She is interested in the politics of everyday life through exploring the relationships between broader scale processes of political economic and cultural change and embodied experience.