Agriculture Can Be Stressful, But You Are Not Alone.

Agriculture is an occupation full of potential stressors like weather, changing economic markets, animal health and machinery breakdowns. When these factors start to compound, many farmers experience excessive amounts of stress, making it hard to remain positive and move forward through the hard times. Due in part to the stresses that are faced, agricultural workers have high rates of suicide. If you or someone you know is experiencing excessive stress or thoughts of suicide, please reach out to a confidential crisis support line. Additional information and resources are available on the The Farm and Ranch Stress Assistance Network website at https://extension.oregonstate.edu/farm-ranch-stress-assistance-network

OSU and the Farm and Ranch Stress Assistance Network is not a crisis center. If you need immediate assistance, please reach out to the Suicide and Crisis Lifeline at 988 or 1-800-273-8255 or the AgriStress Helpline at 833-897-2474.
Monitoring True Armyworm in Wallowa Co. Timothy Hay Production (for export)

In response to the devastating true armyworm plague that occurred in 2022, a collaborative monitoring project (Wallowa Co. Grain Growers, timothy hay producers, OSU Extension Service, and the USDA-ARS Forage Seed and Cereal Research Unit – Corvallis) was conducted from late May until early October 2023. The project aimed to implement an early detection system for spring/fall migrating true armyworm moths and develop a better understanding of moth/larvae activity in Wallowa County timothy hay production fields. Six commercial timothy fields were selected as monitoring sites across Wallowa Valley, with monitoring sites located from SE of Joseph to as far north as Wallowa. Species-specific pheromone bucket traps were collected on a 7-10 day schedule (approx). Species targeted (Noctuidae family) included the true armyworm (*Psudaletia unipuncta*), fall armyworm (*Spadoptera frugiperda*), and yellow striped armyworm (*Spadoptera praefica*).

The true armyworm population (both adult and larval stages) in 2023 was significantly lower compared to observations made in 2022. Very few true armyworm moths were captured from 1 June to 11 July 2023. Only one “peak” in moth activity occurred from 19 July through 29 August (see chart) which resulted in an average weekly trap catch of 36, 84, 59, 64, 17, and 6 true armyworm moths/trap, respectively (Figure 1). Foliage sampling and sweep net activities intensified in August to search for larvae infestations, however, the project crew only found one larva during the entire season (23 August). The average date true armyworm moths peaked in Wallowa Co. was 4 August (Figure 2). This date aligns with the average peak of second-generation true armyworm moths in Western Oregon early to mid-August (13 Aug).

In summary, the low number of adult moths captured early season suggests the cool/dry spring conditions in the PNW may have impacted adult moth migration from the southern region of the U.S. With so few adults captured in June and early July, plus the lack of larvae during this time, we may need to consider that peak moth activity may have been a late migration of adults into the Wallowa or an early migration prior to trap deployment and initiation of monitoring efforts. Harvest activities associated with first cutting timothy hay in July and natural predation may have also disrupted egg deposition of second generation adults and may be factors that contributed to the lack of true armyworm larvae late season. Fall armyworm moths were not captured at any time during the monitoring season. Yellow striped armyworm moths were captured from 19 July to 29 Aug with an average trap catch rate of 2.8, 7.2, 13, 16.8, 4, and 0.4 moths/trap, respectively. By-catch of alfalfa looper moths (fall armyworm trap) was very high at two sites during this period.

Members of the monitoring project include: Clay Freels – Wallowa Co. Grain Growers, Claira Goracke – Union Co. Extension Agronomy Intern, Jacob Falk – Wallowa Co. Extension Intern, Seth Dorman – Research Entomologist: USDA-ARS, Darrin Walenta and Pete Schreder – OSU Extension. Grower cooperators include Tyler Coppin, Alan Klages, Mark Butterfield, Joe Dawson, and Woody Wolfe. The team greatly appreciates Clay’s weekly contribution and dedication to the project from the start to the finish of the monitoring season! Thank you Claira for the extra help to identify specimens with training from the Dorman Lab!

![True Armyworm larva](image)

*Photo: Amy Dreves*

![Figure 1. Total number of true armyworm adult moths in pheromone traps across 6 commercial field sites in Wallowa Co. for each sampling date in 2023.*]
Who Can Attend? The pre-exam training session is open to anyone who needs either to:

1. Take an ODA exam (Private Pesticide Applicator or a Laws & Safety for any other License Category); or,
2. Earn recertification credits for any Applicator License type.

How to Sign Up? Please RSVP by calling the Extension Office at the location in which you would like to attend.

The training session is split into two 2-hour sessions. Participants can attend the session of their choice or both sessions. Recertification credit signup sheets will be available at the end of each session. Each 2-hour session earns 2 Core or General credits. There is no registration fee, and classes will be held on-site at each of the locations listed below:

February 14 (Wed) Union County – OSU Extension Service (Bud T. Jones Conf. Room)
10507 North McAlister Road, La Grande, 97850
Phone: 541-963-1010 Fax: 541-963-1036
Contact: Darrin L. Walenta Email: darrin.walenta@oregonstate.edu

February 28 (Wed) Wallowa County – OSU Extension Service (Cloverleaf Hall)
668 NW 1st Street, Enterprise, OR 97828
Phone: 541-426-3143
Contact: Pete Schreder Email: peter.schreder@oregonstate.edu

March 13 (Wed) Baker County – OSU Extension Service (Conf. Room)
2600 East Street, Baker City, 97814
Phone: 541-523-6418 Fax: 541-562-8225
Contact: Jacob Putney Email: jacob.putney@oregonstate.edu
Will Price Email: William.price@oregonstate.edu

AM Session (2 General or CORE Re-Certification Credits):
9:45 am Welcome & Program Overview – Agent from Host County
10:00 – 11:00 am Review Key Laws, Regulations, Exam Study Materials (P. Schreder)
11:00 – 12:00 am Math for Applicators (J. Putney)
12:00 – 1:00 pm Sign-up for AM Session ODA Re-certification credit

On-site lunch break - Please bring your lunch! PPE examples will be on display

PM Session (2 General or CORE Re-Certification Credits):
1:00 – 1:30 pm Math Exercise Review (J. Putney)
1:30 – 3:00 pm The Pesticide Label, Toxicity & Safety (D. Walenta and W. Price)
3:00 pm Sign-up for PM Session ODA Re-certification credit
OSU Pesticide Safety Education Program (PSEP) Applicator Training Events

The OSU Pesticide Safety Education Program winter 2023-24 training schedule, course details, and registration information is available online at [https://beav.es/o5q](https://beav.es/o5q). Several training sessions are offered in-person in Jan-Feb 2024 and offer 4 to 8 credits but the closest one will be in Hermiston on 8 Feb 2024. Several live webinars are also available and offer 4 credits at a cost of $80/webinar. A “last minute” webinar is scheduled for 27 December 2023 for those still needing credit before the end of 2023. A new option available through PSEP are online on-demand courses that offer 1 to 2 credits at a cost of $35/course. If you are looking for additional exam preparation training opportunities, PSEP is offering two in-person courses (2-day training event each) in Albany, OR on 13-14 December and again on 4-5 March. Each of pre-exam course costs $225 to cover food, venue reservation fees, and printed study materials.

2023 Last Chance Pesticide Recertification offered by WSU, U of I, and OSU Extension

We’re now accepting registrations for the Last Chance Pesticide Credit Event to be held on Friday, December 8th from 9:00 am to 3:00 pm with in-person locations in Walla Walla, Pendleton, Colfax, and Clarkston. Online participation will also be available by Zoom. Pre-registration is required and course is FREE. Instructors are local and regional experts. Topics include:

- Harvest Weed Seed Control for PNW Wheat Production Systems
- Label changes for threatened and endangered species
- Russian Thistle Biology & Control
- Invasive Weed Control using Targeted Grazing
- Residual Herbicide Issues in Rotation Crops

Find more information: [https://extension.oregonstate.edu/umatilla/events/last-chance-pesticide-credit](https://extension.oregonstate.edu/umatilla/events/last-chance-pesticide-credit)

SAIF Agriculture Safety Seminars (24 Oct – 21 March)

Seminars are designed for owners, operators, supervisors, and foremen but anyone working in the ag industry is welcome to attend. Small ag employers participating in the seminar(s) will meet one of four requirements that exempt small ag operations from random OSHA inspections. Live seminars and webinars are offered in English and Spanish, but credits are only available for the live seminars. For more information visit [https://www.saif.com/trainings/agricultural-seminars.html](https://www.saif.com/trainings/agricultural-seminars.html).
Using Record Keeping to Add Value to Your Operation,  Will Price, OSU Extension Service – Baker & Union

As we move into the colder months many folks begin shifting their attention towards the upcoming calving season. Calving is always an exciting time of the year, as it brings new life and hope for a successful year. With that comes the perpetual challenge of how to best keep and manage records for your herd. There are a number of ways to keep records and it can often be challenging to decide what is the best option for your operation. Additionally, there are endless ways to use the records that you do keep, from birth weight, doctoring, weaning weights, and lineages for genetics. At the end of the day, what really helps a livestock operation is keeping and using records that will increase profitability for years to come. The record keeping options and uses presented here are just a few ideas that may be of use. I welcome any suggestions that you may have to make the list longer and more useful.

**Record Keeping Tools**

The tried-and-true methods are simply keeping written records. Perhaps the most common way may be to use a purpose made calving book from NCBA or a breed association. I have also seen producers keep high quality records in a 50-cent notebook they purchased form the hardware store. Written records are simple and easy to use at all times of the day in any location, but one drawback is that they can be a bit difficult to go back through and find the information later on.

Recently there have been a number of computer and cellphone-based applications for record keeping. In the past these apps have been difficult to use if they required phone reception, or they were outright clunky. But through feedback from ranchers they have begun to get better and more folks are using them. CalfDex is a free app developed by Kansas State University that does not require phone service to store information. It has a handy system for logging information from birth weights through weaning for individual calves or whole herds, as well as data for all of your mature animals. CattleMax is another app that has become popular. As a paid program it includes a number of options for specific records as well as integrations between cellphones and your computer. Ranchr is another paid app that provides a number of record management tools that can be customized to meet your specific needs.

**What Records to Keep and Why**

“What records do I really need to keep?” is a common question that comes up in discussions, and there is not a correct answer. It depends on your goals and the amount of time you want to spend managing your records. At a minimum birth and weaning weights are good to keep track of how a cow does raising her calf each year. Many operations also keep track of complications during calving and how often a calf requires doctoring. If a specific cow seems to need help calving and struggles to keep her calf healthy it is likely that you will not want to retain her offspring as replacements and even may consider replacing her in the herd.

Sire history and herd lineage is also useful information to have on hand when building a herd’s genetics so animals can reach their full potential on your operation or if you are raising seed stock as a value-added proposition. Additionally, depending on how calves are marketed it may be possible to obtain data about how animals perform on feed as well as carcass traits after processing. This information can also be helpful when improving herd genetics as a reputation for producing cattle that perform well may increase value when marketing calves.

Every operation will have a different set of needs depending on how you manage and market your herd. Commercial and registered ranches will find different data useful just as operations that retain calves beyond weaning to the growing and finishing stages will require additional records.

While there are countless ways to keep records, and even more details and traits that can be recorded, at the end of the day the real value is how you use the records you keep. Keeping detailed records is a wonderful habit to start. I would encourage everyone to take some time and think about what your records can tell you, and how you can use that to improve the efficiency and profitability of your herd. If you have questions about record management systems or what records would be the best for your ranch you can contact the OSU Extension agent in your county, we are happy to assist however possible.
Feeding for Rebreeding, Pete Schreder OSU Extension

Good nutritional status is one of the most important factors in successful reproduction. In this article I will review the nutritional demands, the nutrient requirements, and the nutrient content of common feeds for mature cows and first-calf heifers after calving and into the breeding season.

Challenges
It is especially challenging to meet nutritional needs during this post-partum period. Compared to other times in the cow’s production cycle, cows have the highest energy and protein requirement in this phase. The cow is facing several tasks. She is recovering from calving with the repair and involution of the uterus to its pre-pregnant state, the development of follicles, and release of a viable egg from the ovary. She is also nursing a calf. And if she is a young cow, she requires extra nutrients for her continued growth. A good goal is to have first-calf heifers at 85% of their mature weight at calving.

This is also the time of year when extra nutrients are required to maintain body heat in cold weather. Wow, that is a lot to ask of our cows! However, if we do this right, they will conceive in a timely manner (to calve early next year) while successfully weaning their current calf.

It is difficult for cows to consume enough energy and protein to support all the demands in the post-partum period, and they are typically in negative energy balance (more energy expended than taken in). Fortunately, the body can store energy to help with these demands. A common way to assess body energy reserves is the body condition score (BCS) system. Scores range from 1 (extremely emaciated) to 9 (obese).

Build BCS prior to calving. Cows calving in BCS 5 and heifers calving in BCS 6 are in optimal condition and perform better than those in lower BCS. That is, they return to estrus sooner, have improved pregnancy rates, and conceive earlier in the breeding season. I urge you to use this system if you are not already doing so.

The reproductive system of the cow takes cues from the internal and external environment. The BCS and diet of the cow are two of the factors the body "evaluates" prior to resuming reproductive functions. An increasing plane of nutrition provides positive signals. If you have your cows in good body condition at calving, you can more easily feed your cows for reproductive success.

Feeding Tips
Let’s look at specific protein (crude protein, CP) and energy (total digestible nutrients, TDN) needs and feed quality. Daily requirements of cows during early lactation (moderate milking ability, 10 lbs) for dry matter (DM, as fed feed minus the water), CP, and TDN along with some feed values are listed in the Table 1 below.

As you can see, animal requirements and nutrient content of feeds vary. Separate rations using different combinations of feeds are needed in order to provide feed economically and support production goals.

Animal nutrient requirements can be found in publications, but hay quality is unique to each specific harvest and should be tested. Workers at OSU completed a survey of forage nutrient content and published information on the variability of harvested forages. The results are printed in the Oregon Forage Library (http://oregonstate.edu/dept/animal-sciences/foraglib.htm). Pasture and rangeland forage vary with stage of plant maturity, but generally are of sufficient quality during the spring breeding season to meet requirements if sufficient quantity is available.

Balancing rations for livestock takes some level of skill and knowledge but can be learned and practiced with little difficulty. You can hire a nutritional consultant or seek help from the OSU Extension Service.

Using information from Table 1, an example diet for the mature cows would be about 18 lb of grass hay and 6 lb of alfalfa per head per day on an as fed basis. For the heifers, 12.5 lb of grass hay, 5.5 lb of alfalfa, and 3.5 lb of barley would satisfy requirements. The rations are quite different between the two classes of cows. Remember to have plenty of clean, fresh water for your livestock. An adequate amount of good water promotes feed intake and milk production. You should also provide cows with a custom mineral and vitamin mix. Track intake of this supplement to make sure they are consuming the right amount.

Many producers test their hay and find they save money by knowing how much of each commodity to feed. Overfeeding wastes costly resources. Underfeeding causes low pregnancy rates and delayed conception dates, both of which can decrease the pounds of saleable calf at weaning time. Test your hay so you can use the information to balance your livestock rations to meet production goals in an economic manner.

I hope this article has been useful for reviewing your feeding practices and that you will consider adopting some of the suggestions listed here.

| Table 1. Nutrient requirements<sup>a</sup> of early lactation cows and example nutritive quality<sup>b</sup> of common feeds. |
|---|---|---|---|---|
| Item<sup>c</sup> | DMI Lb | CP Lb | % | TDN Lb | % |
| 1100 lb Mature Cow | 20.2 | 2 | 9.6 | 11.5 | 56.6 |
| 900 lb First-Calf Heifer | 19.2 | 2 | 10.4 | 12 | 62.7 |
| Grass Hay, average quality | | 7 | | 57 |
| Alfalfa Hay, fair quality | | 17 | | 57 |
| Ground barley | | 12 | | 87 |

<sup>a</sup>Requirements may be higher if body condition score is low and/or environmental temperatures are extremely low. <sup>b</sup>Quality of feeds may vary significantly from those listed here. <sup>c</sup>DMI, dry matter intake; CP, crude protein; TDN, total digestible nutrients.
NE Oregon Canola/Rapeseed Protected District Reminder!

Over the last couple of years, spring and fall canola production has increased significantly in the region so it is time for a reminder of the current rules that apply to local producers. If you plan to grow canola or rapeseed in NE Oregon (Union, Baker, and Wallowa Co.), please be aware of OAR 603-052-0860 to 0921 which has established 4 protected districts to protect Brassica spp. seed production areas of the state from the potential for cross-pollination between related species. More details are at the ODA website: https://www.oregon.gov/oda/agriculture/Pages/Canola.aspx.

The following details are specific to the NE Oregon Protected District:

- All field locations must be pinned on the map at the local Extension Office at least 10 days prior to planting the field (ODA permit not required, just pin location on the map).
- Growing for seed (for planting) or for crushing/oil purposes OK.
- Growing any brassica for forage/cover crops OK but not allowed to flower.
- All brassica seed stock for planting must be tested free from blackleg.
- Required 2-mile isolation from any brassica crops canola/rapeseed could cross-pollinate (B. napus, B. rapa, B. juncea).
- All planting, harvest, and transportation equipment should be cleaned to prevent inadvertent spread from the production field.
- Producers are required to control volunteer canola/rapeseed plants to prevent flowering.
- Non-compliance may result in enforcement action.

Growers in the region should be aware of important changes are coming in the near future!

1. In Union County, a need has been identified to establish two open pinning dates to accommodate fall and spring-planted canola/rapeseed. Details are not yet finalized by the growers.
2. In Baker County, a pinning map has, historically, not been needed. In response to recent grower interest, a pinning map will be set up in the Baker County Extension office to comply with administrative rule. The goal is to have the map operational by spring planting in 2024. In addition, there is additional interest to also offer a voluntary open/bee-pollinated specialty seed crop isolation map program in Baker County to improve communication between growers and avoid issues with meeting future isolation needs (e.g. sunflower, carrot, radish, turnip, onion, etc).
3. Wallowa County growers have not identified a need yet, so there are no immediate plans to initiate a canola/rapeseed pinning map.

Union Co. Open/ Bee-pollinated Specialty Seed Crop Workgroup to Meet Dec. 14th

Growers in Union County will meet on 14 December 2023 from 10 am to noon at the Union County OSU Extension Office conference room to resume work on developing operational guidelines for the voluntary open/bee-pollinated specialty seed crop isolation program. So far, growers have met twice this year (16 Feb, 14 Sept) to start the process of program improvement. For long-term success, improved infrastructure is needed to enable growers the opportunity to produce specialty seed crops and meet isolation needs in a geographically-limited production area. The program is being developed by local growers with the goal of establishing detailed operational guidelines, creation of a grower advisory panel, and reviewing the program annually. All interested growers are invited to participate in workgroup activities and contribute to program development. Participants will also be asked to fill out a short survey to help prioritize needs. Part of this effort does involve improving one aspect of the canola/rapeseed protected district by creating “fall” and “spring” open dates for pinning canola/rapeseed production fields.
NE Oregon Calving School January 27, 2024

Saturday, January 27, 2024
12:00-3:30 p.m.
Eastern Oregon Agricultural Research Center – Union
372 S 10th ST, Union, OR 97883

Questions & Registration Contact:
Will Price—Baker & Union Counties
541-523-6418
william.price@oregonstate.edu

Pete Schreder—Wallowa & Union Counties
541-426-3143
peter.schreder@oregonstate.edu

Register online using the QR code or at https://beav.es/qQD

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Extension Service