

COACHING AGRONOMY

By Tim Brown
Tulelake FFA

INTRODUCTION: Get Ready to Work

First and foremost, you need to decide if you are participating or competing in the Agronomy contest. If it is the former, you might as well stop reading. Agronomy is a contest that is extremely hard to coach, even more challenging to learn, yet once mastered relatively easy to be highly competitive. There are no shortcuts. You must spend just as much time preparing and learning the contest as your FFA members spend practicing. At Tulelake, my students officially practice 3-4 hours per week, which means I spend 3-4 hours creating practice materials. Tulelake FFA has earned 4 State FFA Agronomy Championships, yet each year I continue to create new and innovative study techniques for my students. In addition, beg, steal and borrow samples, while creating your own. Use a combination of materials and samples to create a highly competitive Agronomy team.

BREAKING DOWN THE CURRICULAR CODE

<http://calagteachers.org/CurricularActivitiesCode.html>

You must have 4 members since the national contest counts all 4 scores. Here is the breakdown on the individual points.

Classes

Class	Individual Points
Judging Class 1	50
Judging Class 2	50
Judging Class 3	50
Judging Class 4	50
USDA Grain Grading Class	50
Reasons Class 1	50
Reasons Class 2	50
Reasons Class 3	50
Reasons Class 4	50
Identification Part 1 (Plants)	300
Identification Part 2 (Insects)	50
Identification Part 3 (Disorders)	50
TOTAL	850

Now I break these points down into simpler terms which enable goals to be set.

JUDGING:	200 POINTS
REASONS:	200 POINTS
GRAIN GRADING:	50 POINTS
PLANT/SEED ID	300 POINTS
INSECTS	50 POINTS
DISORDERS	50 POINTS

Each year, each team and each member is different, so goals for the scores they need in each area will differ. However, the MAIN goal of being competitive will never change. Winning back to back state championships in Agronomy, many coaches think I had the same type of students. When in fact, they were completely opposite. Therefore, the goals that I set for each competitor in each area was different. My 2018 team was strong in identification, judging, and reasons. I knew this was the path to winning, while the 2019 team was strong in math, insects, and disorders. I had to approach and coach each team completely different. The ultimate goal never wavered, just how each member's scores their points changed. Figure out what your team excels and where they struggle. Then develop strategies to enhance their strengths and turn their negatives into positives. Develop goals within each category for them to achieve.

JUDGING

“Judging will never win a contest, but it sure can lose a contest.” Trust me, I have lost several silver bowls because of judging. The main theory here is that students need to be solid to average in judging. Here are 3 key rules to follow:

1. Keep it simple
2. Attend critiques and ask questions
3. Take pictures/videos

Rule 1. The code gives guidelines on judging. Do not overcomplicate these guidelines. Keep reviewing the basics. I use a sheet for seed judging that was developed in the nineties. Use the guides for alfalfa, small-seeded legumes, and crops other than small-seeded legumes. I do not focus on the exact numbers but rather on the ranking of importance. Once again keep it simple.

Rule 2. Attend the critiques and have students listen and write down information. This is where they become more advanced judges. This is also instrumental in developing knowledge for reasons. Now, you will almost never catch me in critiques for judging. But I guarantee you that my students are in there listening, taking notes and asking questions. This is their time to absorb information.

Rule 3. Taking pictures or videos of the classes. Jerry Del Sol does a fabulous job of taking extensive videos of judging classes. This works perfectly for him. I just take a quick picture of each class. Also, take pictures of the official placings and cuts. Remember use what works best for you and your students. The following week after a contest, do a quick review of the judging classes and ask your students what the officials said in critiques.

Another good hint is to use industry to assist your students. PLEASE make sure they know the basics before you expose them to experts. These professionals are always impressed by the amount of information the students possess. I take my students to grain elevators, universities, hay growers, grain farmers and UC Davis extension offices. I even took my students to an avocado farm. Quality is quality. Utilize these professionals to enhance what they already know. Jerry Del Sol has outstanding screencasts on judging.

<https://www.youtube.com/user/jerrydelsol>

REASONS

I am prefacing this with the statement that my least favorite part of this contest and any contest are reasons. To me, it is a necessary evil that I do have to coach. I have tried countless ways to get out of listening and listening to reasons over and over again. Some have worked but most don't. It really comes down to the fact that students must give you sets of reasons. So what to do with reasons?

- Create a basic template for them to follow
- They need to write out reasons and have them peer review
- Present reasons to coach and other members
- Have them type out reasons from a contest

The worst mistake I made with reasons, in the beginning, was trying to make them like livestock reasons. I credit Darrell Hirschler for teaching me a basic set up to follow. You teach the students the basic setup, then let them add their own personality. Now I have had some very powerful students over the years presenting reasons but I have also had some very 'unique characters'. I give these unique individuals the freedom to be themselves as long as they follow my basic guidelines. Do not create robots, create individuals.

Several pitfalls to avoid in reasons:

- Do not have canned sets of reasons - students need to say what they saw.
- Do not memorize reasons - keep it more spontaneous
- Do not write out word for word reasons at a contest

GRAIN GRADING

Yes, I realize that grain grading is apart of “judging”, but I keep it separate. My 2019 teams were math minded. They had it figured out after about 10 minutes. I gave them more and they kept getting it. Now my 2018 team consisted of one math brain. It was way more challenging to teach this section therefore we had to devote many more hours of practice. Once again, know your team and adapt to them. If you are fortunate enough to have a team compete at the national contest, be aware that it is much more advanced at this level.

Watch the Jerry Del Sol Videos <https://www.youtube.com/user/jerrydelsol>

Use the practice wheat grading from the code

Make your own load analysis

Obtain copies from contests

Obtain a copy of the USDA Grain Inspection Handbook

IDENTIFICATION

Now, this is my wheelhouse. This is where my teams have always excelled. At our first agronomy competition in 2019, one of my students left over half the answer sheet blank. Four months later, this same individual tied for high individual in identification at state finals. So you might want to pay special attention to this section. Also, observe how I interact with my students at critiques for ID. “You can learn a lot from a dummy.”

Some general rules for identification: create the study materials yourself. Yes, you can start with loaner Power Points, Quizlets, etc but if you do not create your study materials you will never advance in ID. Students and coaches need to create study guides. Both are highly effective. In my agronomy Quizlet, there are 94 decks, all created by me or my students. Most coaches will not spend time creating study materials. When coaching ID I use the drill and kill method. Have them go over and go over the sets. When students think they know the ID, make them do it over and over again. “When they think they are good, they are definitely not good.” Do not weaken. My students will do Quizlets/Power Points so many times they will know what ID is coming next. This is what you want. Students do not know ID until they get it right in a contest. My motto: “Students can stop practicing ID once they get a perfect ID score”. Take pictures of the entire ID contest, no matter how easy it is. This gives students confidence when they are learning the ID. Set your own standard for “easy”. I have been told numerous times by coaches that the ID contest was “easy or pretty straightforward”, yet my team wins ID by over 100 points. Once again, set your own expectations and goals.

PLANT/SEED ID

Where to start with ID? I start with the easier ID, such as beans and cereal grains. Each week I add a new section of the ID code that is more challenging. Always review what they learned in the previous weeks. Remember this is drill and kill. You should constantly be reviewing with them. This is also what they should be studying on their own. The last items I teach them are weed seeds and legume plants and seeds. For me, these are the most challenging. Start off easy and work up the level of difficulty. You will need to establish what you feel is easier and more difficult to teach and learn. Another great tip is to let the students tell you what they see. Many times they have a unique perspective on how to ID. Have students create a plant and weed collection. Here are some Power Points. Some may contain old ID. Make sure you know the code.

Weeds 1 <https://drive.google.com/file/d/1qFloCkt-DgzoBIQOAMPimiFUkgEzIDdb/view?usp=sharing>

Weeds 2

<https://drive.google.com/file/d/1RaNPgofmaaqlpoi8Q5OsdYcfcKQzmWY/view?usp=sharing>

Weed Seeds 1

https://drive.google.com/file/d/15WIfE4nlw6Nb_qCTEo8MFDcLw3dvPYog/view?usp=sharing

Weed Seeds 2

<https://drive.google.com/file/d/1ovXmiBw5y3Pli2IstPTVrVBiSayMGs8l/view?usp=sharing>

Grasses

https://drive.google.com/file/d/1eF0SYEwbU5SNukwL085HUCYkYF6_jJYr/view?usp=sharing

Legumes

<https://drive.google.com/file/d/1rAqTReK1Kv8Vkp2JRjpwqEs-UrZ8RmQh/view?usp=sharing>

Misc crops <https://drive.google.com/file/d/0B1u3-toCDptKeDU2NTdFV1ZKcXM/view?usp=sharing>

INSECTS

Break the insects into two categories: identification and knowledge. Learn to identify the insects first, then teach them the economic impact, life cycle, and mouth part.

ID is very straightforward. As simple as it sounds, just have the students key off of just a few of things. Do not make it harder than what it is. A Honey Bee is a Honey Bee! Get an insect collection. Have students make them, purchase one, and borrow one from the local ag commissioner's office. Ohio State University has a great expensive collection for sale. I still mainly use pictures. Once students have grasped the pictures, then I show them the insect collection. About 90% of insect ID, my students are looking at pictures.

Now that we have adopted the national insect list with the KEY, 99% of your job is complete. Now figure out methods or strategies to teach your students this massive amount of information or just be lucky enough to find someone who will share. This takes countless hours to figure out. At the 2018 National Finals, I had 3 students earn a perfect score in insects. 2019 state finals, all 4 of my students had the exact same score because they all missed the same insect. Consistency in the insect portion is crucial. After each contest, make sure to take a picture of the insect key. Do your homework and due diligence. It will pay off in the end.

Once again, the code was updated for insects. This powerpoint does not contain all the insects but it is a start.

<https://docs.google.com/presentation/d/15jL67WEWgNr32S3jTJorQBz7dJj3ZnK0SpCrI5BHBCo/edit?usp=sharing>

DISORDERS

Try to gather as many points as possible, therefore set realistic goals. This portion of the contest is a huge challenge. You have to look at so many different pictures of disorders from so many different resources. Keep reviewing the pictures with them. This will require countless research hours. Pest Control Advisors can be a resource but tend to overcomplicate. Farmers are fantastic at showing and teaching students diseases because they are more a matter of fact, straight forward and point out the basics. Remember do not expect perfection, students will drop points. However, do not sleep on this area. Heard coaches say “everyone gets low scores on disorders’. There are valuable points to gain on the competition.

RESOURCES

UC IPM <http://ipm.ucanr.edu/>

Tim Blank tjblank@ucdavis.edu

<https://www.calflora.org/>

Ron Alves (209) 404-6585

Tim Brown - Tulelake FFA - tbrown@tbjusd.org

Weeds of the West Book