Selecting a citrus greening By Jamie D. Yates and Timothy M. Spann Scouting company

dentifying and managing citrus greening (Huanglongbing, HLB) has become a priority for citrus growers across the state. Identifying citrus greening can be confusing and tedious until one gains experience. No matter the size of a grove, scouting for greening is now an essential part of any good grove management plan.

Many companies now offer scouting services statewide to assist both large and small growers with greening identification. Selecting a company to scout your groves is an important decision and should be done with careful consideration. The following is a series of questions which you may find helpful when trying to determine if a scouting company is the best choice for your scouting needs.

WHAT IS THE HISTORY AND EXPERIENCE OF THE SCOUTING COMPANY? Relying

on a company with experienced employees is important. Simply choosing a company that has been in business for a while may not be the best choice if they have a high employee turnover rate. High turnover may indicate scouts have little experience even though the company has been in business for a long period of time. Be sure to inquire specifically about the experience of the scouts who will be working in your grove.

WHAT TYPES OF TRAINING DOES THE COMPANY PRO-VIDE FOR ITS SCOUTS? Green-

ing symptoms can be very difficult to identify to the untrained or inexperienced eye, making training essential for a scout to be able to properly identify greening. An inexperienced or poorly trained scout will often confuse visible nutrient deficiencies or other diseases (e.g. Phytophthora, tristeza) with greening. Once trained, however, good scouts can recognize symptoms with a high degree of accuracy. Every company has a different training method, such as having scouts attend UF/IFAS trainings and other greeningrelated extension meetings, attending industry meetings (e.g., Citrus EXPO or Indian River Citrus Seminar), or inhouse training by shadowing experienced scouting crews. No one method is best, but nothing can beat on-theground experience in the field to see all of the manifestations of the disease.

HAVE THE SCOUTS RE-CEIVED PROPER CANKER DECONTAMINATION TRAIN-

ING? It is mandatory that grove workers be trained in proper canker decontamination procedures every year. Citrus canker is still a threat in the state of Florida and growers should take every opportunity to be aware of the potential introduction of canker into their groves. Scouting crews enter a large number of groves every day, so it is important that all scouting crews be trained in and practice proper decontamination procedures according to the law and according to growers' requests when entering and exiting groves.

WHAT METHODS DOES THE SCOUTING COMPANY

USE? Various methods can be used to scout for greening, including walking and riding on elevated platforms or ATVs. The size of the trees will determine the best method to use. Small trees are best surveyed by walking and medium trees by walking or ATVs. Large trees can be inspected by walking to allow a close inspection of the lower canopy and also by viewing the upper canopy from an elevated platform.

ONCE SUSPECT GREENING TREES ARE IDENTIFIED, WHICH WILL BE SAMPLED FOR PCR ANALYSIS AND WHO WILL SUBMIT THE SAMPLES? It is important to know how your

It is important to know how your scouting company will positively identify trees. Once a tree is visually identified by a scout as being suspected of having greening, many companies will have a senior scout confirm the diagnosis. In cases where both the scout and senior scout agree on the diagnosis and there is little question, a scouting company may take samples for PCR analysis. Some scouting companies may choose only to sample those trees for which the diagnosis is somewhat questionable or they may sample a set percentage of visually diagnosed trees. In other cases, the company may sample every tree or the grower may request this service. Be sure the scouting company clarifies

what samples will be taken and who will submit them to the lab. If the scouting company will be submitting the samples, clarify where the results will be sent so that all parties involved are notified.

WHAT PERCENTAGE OF YOUR PCR SAMPLES ARE

POSITIVE? Many growers ask a scouting company how many of the samples they submit for PCR analysis return positive results. This can be useful information to help you decide which scouting company to hire. However, as noted above, not all scouting companies will sample in the same way, so it is important to know the specific sampling method to interpret their results. For example, a company that samples every tree may have a very high percentage of its samples test positive because it is including those which are very obvious. In contrast, a company which only samples the questionable trees may have a low percentage test positive. Neither is bad if you understand the company's sampling method so the results can be viewed in the correct context.

HOW WILL SUSPECT TREES BE MARKED AND HOW WILL I RECEIVE THE RESULTS OF THE SCOUTING? It is important

that the trees identified as having greening be uniquely identified. Be sure to communicate with the scouting company what color flagging tape(s) or other markings you use for various purposes in your grove. Once a scouting crew has inspected your grove, you will want to know what it found. The results must be received in a format that is usable to you and your operation. Will the scouting company simply flag the trees or will it provide you a map to help you locate the flagged trees? Many companies will provide you with row and tree numbers. Others may provide GPS coordinates for each tree and may even overlay this information on an aerial photo of your grove. GPS coordinates are particularly helpful for large groves. If you would like to have the trees marked in a particular way or receive the results in a special format, you should communicate this to the scouting company before it begins.

CAN YOU PROVIDE REFER-ENCES FROM GROWERS WHO HAVE USED YOUR SERVICES?

The best knowledge you can receive about a company is the positive or negative comments from previous growers' experiences with the company. Ask for the names of several previous growers whom you can contact to ask about their experience with a particular scouting crew in their grove.

WHAT INFORMATION DO I NEED TO PROVIDE TO THE SCOUTING COMPANY? In order for a scouting company to accommodate your needs, accurate information should be provided. Aside from legal information about ownership and who to contact in case something unexpected arises, various other details such as number of acres, fruit variety, rootstock, tree age, tree size, tree spacing, fertilizer history and particular grove conditions will be of interest to help the company decide which equipment and methods are best suited for your grove. If the company intends to use GPS to mark suspect trees, it may want to know the section, range and township so it can download aerial images prior to arriving.

WHEN SHOULD A SCOUT-ING CREW INSPECT THE

GROVE? Symptoms are most easily seen throughout the fall and winter months, but a skilled scouting crew should be able to identify and locate greening symptoms any time of the year. It is recommended a grove be scouted a minimum of four times a year. If greening is nearby or has previously been found in the grove, more frequent inspections are recommended. The best procedure is to schedule in advance an approximate time to have your grove scouted so you can have your grove prepared (mowed, chemical applications completed, etc.). A scouting crew can better focus on the job of identifying

greening symptoms if it doesn't have to fight tall weeds, fallen branches or other obstacles.

HOW DO I FIND THE SCOUTING COMPANIES WORKING IN MY AREA? A list

of scouting companies, their services and the counties served has been compiled by the University of Florida, IFAS, Citrus Research and Education Center. You can contact your local multi-county citrus extension agent or visit http://greening.ifas.ufl.edu for a list of scouting companies in your area.

Scouting for citrus greening is a necessary and beneficial management practice in groves. Early detection of greening and the timely removal of infected trees can increase the life of a grove and should be part of the regular management plan. Selecting a scouting company may take a little time and research, but finding a qualified scouting crew will be a valuable asset to your grove management program.