

Priority Area Weed Compliance Community Survey Report

Historical Information:

Tall Buttercup is a prolific seed producer with each plant creating as many as 250 seeds, all of which can remain viable for 2-4 years. The tiny brown-black seeds are easily carried by livestock and wildlife, as well as transported in contaminated hay, equipment, machinery, and in water. Tall Buttercup was first introduced to Clearwater County in the early 1960's and continues to spread despite our diligent control efforts. It is estimated that there are more than 25,000 acres infested with Tall Buttercup in the County, with the potential to spread to a further 1 million acres. It has become evident that the approach of using general inspections, is not effective for widespread weed issues.

P.A.W.C. Process year 1:

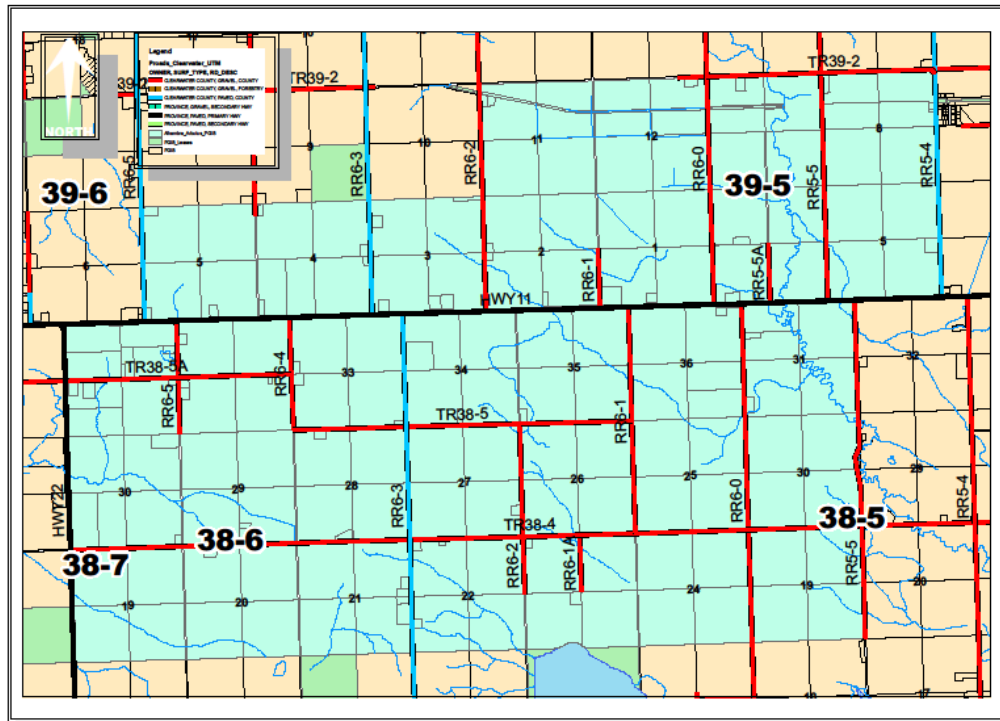
The Clearwater County Agricultural Service Board (ASB) was concerned with the continued spread of Tall Buttercup and unanimously supported exploring a new community based approach for control. As a result, nearly a township of land was selected to take part in the Priority Area Weed Compliance (P.A.W.C.) program, and was purposefully selected for its variance in Tall Buttercup infestation, as well as land ownership demographics. All landowners within the area were invited to a community meeting where they voted strongly in favor of proceeding with the pilot project. To emphasize the importance of a community based approach, a steering committee consisting of seven members from the community was formed, to work closely with the Agricultural Service Board and Agricultural Services staff, in directing the community's needs within the PAWC area. In discussion with these governing bodies, two weed control expectations were established; the first one being "A Meaningful Reduction of Tall Buttercup for following years" and the second being "Do No Harm to your Neighbors". These were considered fair and reasonable expectations of all landowners. To demonstrate fairness the Committee chose to issue a *Notice To Remedy Weed Problem* for Tall Buttercup control to all landowners within the PAWC area. The majority of the 200 weed notices were hand delivered, with the exception of a few that required delivery by registered mail. This one-on-one engagement with the landowners provided staff the opportunity to meet the landowners, gain valuable historical weed control information, and provide technical advice for identification and control of Tall Buttercup.

To support them with their control work Clearwater County made spraying equipment available free of charge to all landholders within the PAWC area. This equipment included a PTO sprayer, ATV sprayer, and a hand pump sprayer. Clearwater County also provided a larger selection of spray equipment for a minimal rental fee as well as the option of Custom Spraying. In addition landowners were offered a 10% discount on herbicide purchases if they attended the initial community meeting.

As the compliance deadline of June 25, 2010 neared, each parcel of land was inspected for Tall Buttercup and the method of control work taken. Those that met or exceeded the expectations of PAWC were deemed as compliant with the weed notice. A 97% level of compliance was achieved by the compliance deadline. Seven parcels of land had not had control work completed by the due date. The individual circumstances regarding each of these parcels was discussed with the Steering Committee, who recommended an extension for completion of work due to mitigating

Priority Area Weed Compliance Community Survey Report

circumstances. The extension was ratified by the ASB, and Agricultural Services staff worked with the landowners to ensure completion of Tall Buttercup control. All Tall Buttercup control was completed by July 12th, resulting in 100% compliance for the first year of the PAWC program.



Priority Area Weed Compliance Alhambra-Arbutus

P.A.W.C. Process year 2:

A three year program, PAWC is continually monitored and evaluated for its effectiveness as a weed control template. Year two provided some challenges as new staff adapted to the concept, catching up to where the landowners in the PAWC area were, in adapting to the new model. All Landowners in the PAWC were once again issued weed notices which were hand delivered. In the event that it was not possible to contact property holders directly, notices were mailed *and* posted on the property. With the first year completed, and a database established, that contained information on properties within the area, It was easier for staff to be more focused on problem areas as well as where issues may have existed in the previous year.

Now able to utilize previous data, and having a good idea as to the location of larger infestations, it was easier for staff to be more targeted with a greater degree of accuracy. This knowledge, coupled with the very wet spring which delayed control efforts, and the fact that all landowners were aware of the expectations of PAWC, contributed to a decrease in compliance in year 2. As a result of the wet spring, the compliance date was pushed back to July 1, 2011 as opposed to the June 22 date originally proposed.

Priority Area Weed Compliance Community Survey Report

This year brought 11% lower levels of compliance: 86% in 2011 VS. 97% in 2010, and by July 15 there was 91% compliance in 2011 vs. 100% in 2010. By the end of the 2011 season the results were close, but never reached the 100% compliance achieved in 2010. Weed notices do indicate that Tall Buttercup must be controlled for the entire season, and with the flushes that occurred late in the year, it is unlikely that 2010 ended with 100% compliance.

With a complete change in staff and a decrease in compliance, it is uncertain if there was an actual decrease in compliance, or an increase in awareness of infestations. The reason for variation may be 3 fold.

1. Awareness of infestations and ability to monitor situations more accurately based on 2010 info, resulting in a more accurate representation
2. 2nd year of program and level of compliance and participation have been heightened leading to some being non-compliant that may have been deemed be compliant last year.
3. Different staff, different expectations, different results

P.A.W.C. Process year 3:

The Steering committee has taken their role seriously and has been very responsive to the requests and concerns of the community. At the direction of the community, the Committee has taken a greater role in the Priority Area Weed Compliance program. The 2012 program year will be run differently as notices will not be issued to every parcel in the PAWC area. As a result of the success of the previous 2 years, the Committee believes that landowners have a strong understanding as to the requirements of living in PAWC and the community ownership of the weeds, and therefore do not require as strong a regulatory approach. A newsletter will be sent out in the spring to remind all participants as to the two expectations of PAWC:

- “A Meaningful Reduction of Tall Buttercup for following years”
- “Do No Harm

It is hoped and expected, that due to the strong commitment made by the group, that a reminder in the form of a newsletter should be adequate in most cases to achieve the required work. The P.A.W.C. area can and will have notices issued to those that do not comply. Compliance requirements will be high and those that do not meet the guidelines will be issued a short compliance date weed notice. All members of the community will be expected to uphold established community values.

At the last PAWC meeting, the community supported the Steering Committee in a proposition to Council that a summer student be hired jointly with Clearwater Landcare, to assistance producers. This individual would maintain a different role then the weed inspectors currently involved in the PAWC process. The summer student would be an aid to producers and not a regulatory presence. This student would be responsible for delivering equipment to producers, apply herbicides for smaller infestations of buttercup, assist as a technical aid for producers, and could also be hired by land owners on a cost recovery basis.

The direction the steering committee is taking, is purposefully constructed to maintain and develop a sense of community, while working toward a common goal with the cooperation of neighbours. This direction does not remove the regulatory aspect to weed control.

Priority Area Weed Compliance Community Survey Report

Area Statistics:

There are a total of 148 landowners within the Alhambra/Arbutus Priority Area Weed Compliance program managing 20,336 acres on 200 parcels of land. 69% of the land parcels are managed for agricultural production; 29% are managed as acreage/lifestyle; 1% is Vacant Crown Land, and 1% is classed as Industrial.

Area residents have been asked to complete a survey covering the last two years in an effort to evaluate the program. These results have guided the steering committee in making changes and adjusting to the needs of the community. Both years of the survey were designed to ask the same questions and thus provide a consistent representation of the needs and desires of the community. Last year we received a 37% response rate, followed by a 31% response for the 2011 program year.

Standard Control Methods:

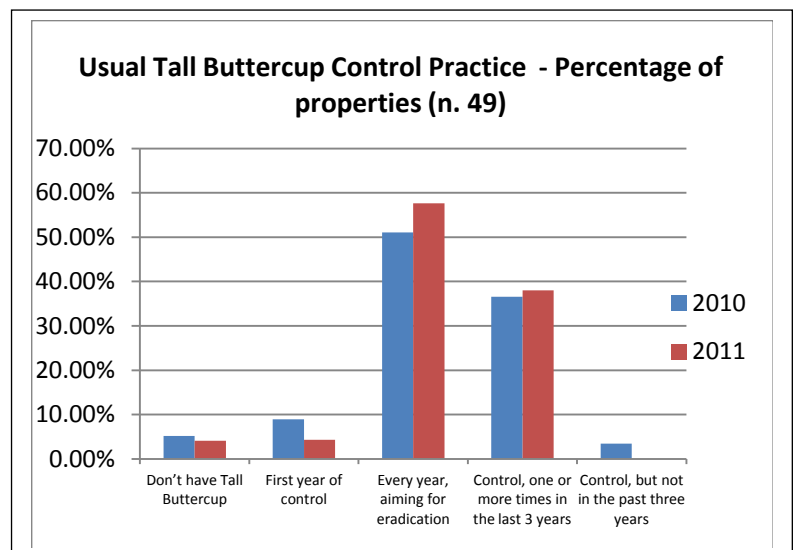
As is evident in the graph on the right, 2011 had a greater number of individuals who aimed at achieving eradication, fewer landowners that “do not have it”, and the complete removal of people with 3 years or greater between treatments.

With only two years completed in the program, it is encouraging to see a greater percentage of participants treating Tall Buttercup on an annual basis with the aim of eradication. The positive results achieved in the first year have been encouraging for participants.

In the past, landowners were often frustrated when their control work was jeopardized by infestations that occurred on neighbouring properties. With all landowners in the area participating in the same program, they have been less discouraged while appreciating the progress made both on their own property, as well as adjoining land.

Challenges exist when trying to achieve effective weed control. We have seen a couple of wet springs in a row that limit the days available to spray and the ability to go on the fields. The area that comprises PAWC is a notoriously low lying, and a wet spring can significantly impair the ability of participants to access their fields. Nearing the original compliance date, County crews with dedicated crews and machinery, had only completed 300 acres of custom spraying. It would have been unreasonable to expect landowners to be have completed spraying when our own crews were significantly delayed.

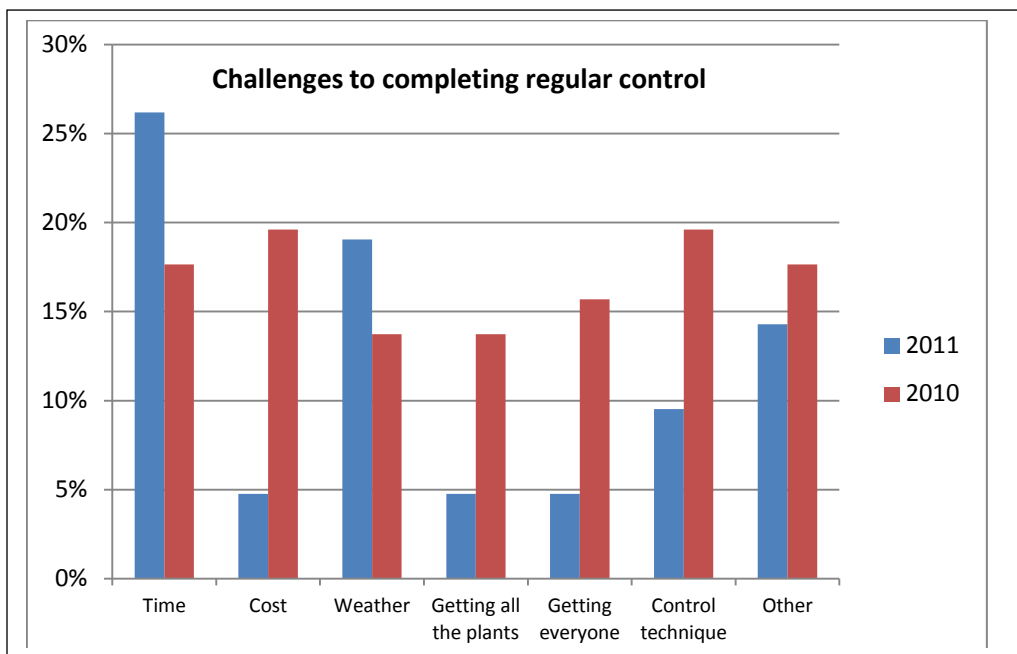
Evident in their high level of participation, PAWC residents were resourceful in accomplishing a great deal of control work, despite climactic conditions beyond their control.



Priority Area Weed Compliance Community Survey Report

When asked about some of the difficulties they faced in achieving Tall Buttercup control, the most highly ranked challenges in 2010 were: Cost; Control technique (poor access to sites, long growing period, herbicide mixing rates); Other (not the landowner, loss of carrying capacity due to reduced legume content, life in general); and Time. Additional factors mentioned were; getting everyone to participate, weather, and eliminating all the plants.

2011 results were significantly different, as the obvious issues were *time* and *weather*. With the late wet spring that occurred in Clearwater County, the two are closely linked. Due to the weather many participants had fewer opportunities to get control work done, and when the weather co-operated, other agricultural/seasonal activities had to be given priority. It speaks well for the community that so much control work actually got done.



Importance of Tall Buttercup Control:

Land owners in the PAWC area would not have supported a community weed compliance model if they did not want Tall Buttercup controlled in community. When gauging the efficacy of this community model it was important to determine the level of importance of Tall Buttercup control to the individual.

When asked to rate the importance of Tall Buttercup control to them as individuals they responded with:

| | 2010 | 2011 |
|----------------------------|-------|-------|
| Very Important / Important | 87.1% | 92.9% |
| Only somewhat important | 11.1% | 7.1% |
| Not very Important | 1.9% | 0.0% |
| Not Important at all | 0.0% | 0.0% |

Priority Area Weed Compliance Community Survey Report

With improved awareness and the obvious progress made in the last 2 years, not only has the knowledge of Tall Buttercup grown, but the importance placed upon it by individuals has increased. No respondents indicated that Tall Buttercup control was not important at all.

In fact, the level of importance is almost identical when comparing the individual to that of the community. Respondents also appeared to understand the economic and social detriments, not to mention the increased losses when viewed from a regional viewpoint.

When observed from the County perspective of potential losses if left unchecked:

- Clearwater County comprises 4.5 million acres
 - 795,500 acres of “farm land”
 - >3 million acres of crown land used for grazing, recreation, timber, and industrial activities
 - >75% of farmland in improved pasture/native range
- All are suitable habitat for range and pasture weeds such as Tall Buttercup, Wild Caraway and Ox-eye Daisy

When asked to rate the importance of Tall Buttercup control as a community the response was:

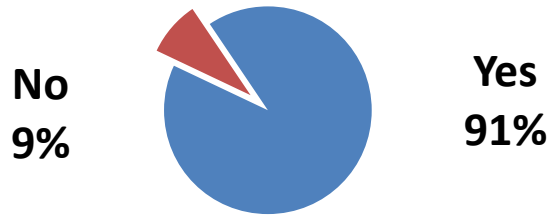
| | 2010 | 2011 |
|----------------------------|-------|-------|
| Very Important / Important | 88.7% | 92.5% |
| Only somewhat important | 9.4% | 7.5% |
| Not very Important | 1.9% | 0.0% |
| Not Important at all | 0.0% | 0.0% |

DO NO HARM / Working Together:

Based on the responses, the second PAWC expectation of “do no harm” appears to have been successful as well. 69% of respondents in 2010, and 74% in 2011 indicated they had completed Total Protection towards their neighbors. When asked how they felt their neighbors had protected them, the ratings dropped. 30% of respondents in 2010 and 32% in 2011 assessed their neighbor as providing Total Protection. The greatest jump occurred in **lack of protection** where in 2010 28% believed that their neighbor had not protected them at all and only 17% in 2011. The greatest success in this program has been the joint effort, where individuals feel that their work is not only contributing to their success but their neighbours success as well, and vice versa.

Priority Area Weed Compliance Community Survey Report

Recommendation of PAWC approach to others : identical between 2010 and 2011

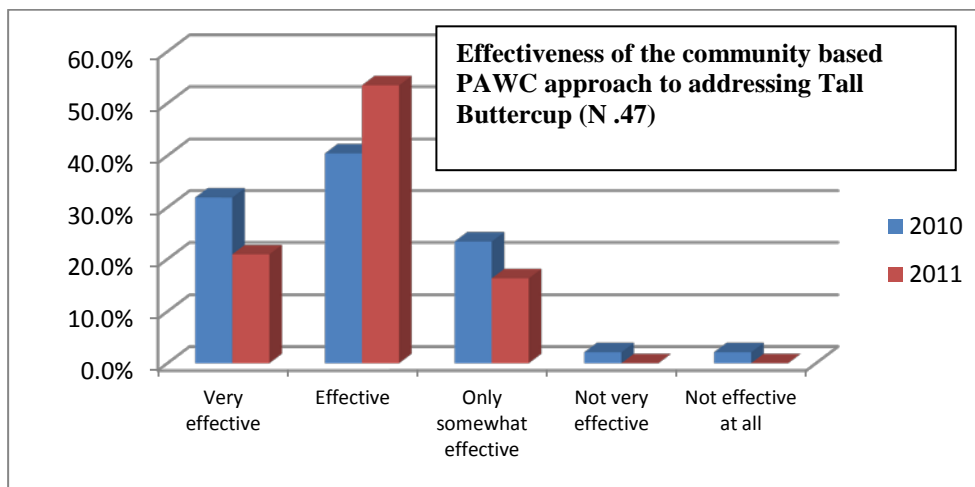


It is important to evaluate the community approach to weed control to determine if in fact it is a success. Has this trial been a success if everyone does the required control work but no cooperation is achieved? If we reduce the occurrence of Tall Buttercup, but the program ends after the 3 year trial what has it achieved? What are the measures of success when a community model is involved:

Working together:

96% of respondents in 2010 and 97% in 2011 believe there are benefits to working together. The cooperation between neighbours continued to increase. Prior to 2010 32% of respondents had worked with a neighbour to control weeds, in 2010 - 38% worked with neighbours, and in 2011 45% worked with their neighbours in some manner. This continued improvement with solid increases, illustrated the willingness of people to work together to achieve a common goal.

Even with a few participants responding that they would not recommend this program, or the small percentage that don't believe there are benefits to working together, NO one indicated in 2011 that this approach was not effective.



Priority Area Weed Compliance Community Survey Report

A great deal of work has gone into this project on the part of all parties involved, and it speaks well of the community, the steering committee, and the county, that respondents considered the community driven approach to be effective .

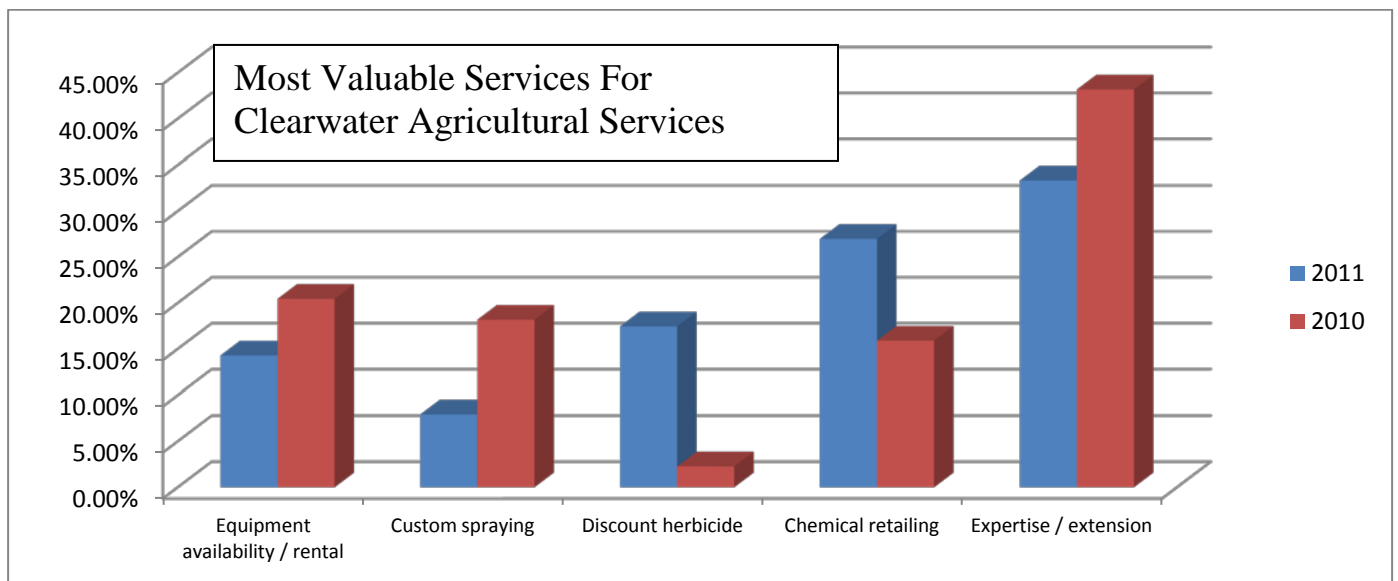
Clearwater County Agricultural Services:

As a partner with the steering committee in the PAWC process, an evaluation of the services we provide that affect PAWC, and the rest of the County, should be assessed to determine the correct distribution of resources at AG services.

The Ag Services department provides a number of amenities to the rural residents of Clearwater County; with regard to weed control some of these are:

- Equipment rentals (both free and at a cost)
- Herbicide Sales
- Technical knowledge
- Roadside Spraying / brushing
- Custom range and pasture spraying
- Plant identification

The evaluation of services in the last two years are as follows:



Priority Area Weed Compliance Community Survey Report

Some of the final comments made by respondents at the end of the survey were:

"the only way to go"

"If everyone does their part, we all gain!"

"As a community it should be everyone's responsibility. If you have noxious weeds they should be controlled."

"It is possible to gain acceptable reduction of infestations if you know your neighbors are also making an effort to do so"

"Should be all of County and penalty if not done"

"Previously I had not known what Tall Buttercup was or why it was such a problem. Your representative gave good information and now I will watch for it".

"The landowners who work to eliminate weed problems will always continue to do it. The landowners who don't worry about weeds will probably continue on that path with or without community involvement. "

"Prior to this year we did not know the severity of T-B-Cup. Now we drive on Alberta Highways we see many fields"

"Your approach made some people mad. Will they cooperate next year or do you start to build hard feelings in the community"

"I think that all the landowners that participated in the "no harm" plan need to be recognized"

"it is hard to see what we do and the rest of the county is not"

"PAWC is a good committee, to help with organizing the joint landowners, and offering their expertise. Hats off to them and thanks for all your work and involvement with reducing weeds."

"(appreciate) The support system that was put in place and made available to the community ie. Awareness, technical information, financial saving"

"I have not seen any improvement over last year in many cases"

"Control of invasive weed species is an element of landowner responsibility"

"positive attitude of participants"

"The PAWC area is looking so much better"

"Keep it going despite a few bullies"

"people who were not doing anything are now working at getting rid of it"