Society To Prevent Dutch Elm Disease (Incorporated 1993)
2011/2012 Annual Report

Table of Contents

This report was written by Janet Feddes-Calpas
Reviewed by Milton Davies

Prevention remains our most effective form of controlling Dutch Elm Disease
and other invasive tree insects and diseases.

1. STOPDED Chair Message - Milton Davies

It has been another celebrated year for the Society To Prevent Dutch Elm Disease (STOPDED). Alberta is still Dutch elm disease free even though DED is being fought as close as Moose Jaw, Saskatchewan and Great Falls, Montana.

It is exciting for me to be the chair of such a dynamic and dedicated province-wide organization, determined to keep Alberta trees healthy. STOPDED has a well-organized and proven Dutch elm disease prevention program. I work with board members that are very knowledgeable about tree pests and their management. We continue to work closely with other provinces that are controlling the spread of DED. We have worked hard to make our organization transparent, accountable and responsible by:

- Registering newly updated bylaws and objects,
- Developing written policies, and
- Implementing the recommendations made by the SVS Group of Charter Accountants

With the increasing expansion of the global marketplace, there has been an increased risk of introduction to Alberta of invasive alien species (IAS) that can threaten our urban forests. I am proud to announce the development of a working relationship between the Canadian Food Inspection Agency (CFIA), STOPDED, and Olds College. We have established an IAS monitoring program in Alberta for the early detection of wood boring insects. This marks the beginning of a long-term commitment to protect and save our trees from IAS.

With the recent discovery of high numbers of a new DED vector, the banded elm bark beetle (BBEB), in the City of Medicine Hat, STOPDED working closely with municipal staff and Ag-Fieldmen to develop a management plan.
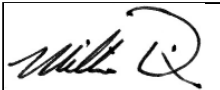
On behalf of the STOPDED board and its membership, I would like thank the following for their financial support:

- Alberta Agriculture and Rural Development,
- Alberta Sustainable Resource Development,
- Tourism, Parks and Recreation, and
- Municipal Affairs.

I would also like to thank the support STOPDED receives from the Agricultural and Assistant Fieldman, Olds College, the Canadian Food Inspection Agency, Canadian Forest Services, Canadian Border Services, elm bark beetle trap collaborators, those that help us out with the firewood bin disposal, all the cities that oversee their satellite communities, our Executive Director, Janet Feddes-Calpas, who administrates and operates the Provincial Dutch Elm Disease Prevention Program, and Dr. Ken Fry and students for their entomology support. I would take this opportunity to thank the STOPDED Research Committee and the STOPDED Board and a very special thank you for all the STOPDED volunteers.

As the STOPDED Chair, it is important to maintain our existing partnerships and to continue the effort in developing new ones. The experience in the provinces that are fighting DED has continually proven that a prevention management program is indispensable. I expect that STOPDED continues to be part of the solution in keeping Alberta free of DED and any other invasive alien tree pests.

Respectfully Submitted,

2. Background

- Dutch elm disease (DED) is an invasive alien fungus known as *Ophiostoma ulmi* or *Ophiostoma nova ulmi* that can affect any elm (*Ulmus* spp.) tree. Once infected the elm tree will die. There is no cure, only prevention.
- The exotic insect vectors for DED are:
    - Smaller European Beetles (SEEBB) (Scolytus multistriatus, Marsh)
    - Native elm bark beetle (NEBB) (Hylurgopinus rufipes, Eichh)
    - Banded elm bark beetle (BEBB) (Scolytus schevyrewi)
- Human vector - domestic firewood movement
- 1999, an elm inventory was completed in all the cities, towns, villages and hamlets in the province of Alberta (AB) by STOPDED.
- By completing the inventory it was found that up to 50% of the overall tree plantings in municipal landscapes are elms. A total of 219,334 elms valued at $634 million grow in Alberta's urban areas. The method used to access the value of the elm trees was is used by the International Society of Arboriculture (ISA).
- The elm has been the preferred tree to plant, not only for its stately beauty, but also for the tree's impressive list of useful properties such as:
    - growing fast on a wide variety of soils
    - easily transplantable
    - long lived (300+ years)
    - more disease resistant (with the exception of DED) than other varieties of trees grown in AB
    - tolerance to drought
    - high salt tolerance in urban boulevard plantings
    - One of the few species that can thrive in the extreme climactic conditions that are present in AB
- Since the introduction of the disease from Europe in 1930, it has destroyed millions of American elm (*Ulmus americana*) trees across North America.
- 1975 – DED found in Winnipeg, Manitoba.
- 1976 - Alberta plant pathologists and entomologists formed a DED Action Committee. Dr. Ieuan Evans, plant pathologist with AB Agriculture at that time, cited the threat of a possible outbreak of this disease in AB as the reason for AB Agriculture's amendment to the AB Agricultural Pests Act to include both the pathogen and its beetle vectors.
- 1981 – DED found in Regina, Saskatchewan.
- Since 1994 either the smaller European elm bark beetles (SEEBB) or the banded elm bark beetle (BEBB) have been found in the following AB municipalities: Calgary, Edmonton, Vauxhall, High River, Medicine Hat, Consort, Coutts, Balzac, Dunmore, Red Deer, Kiliam, Lloydminster, Lethbridge, Taber, Sylvan Lake, Wetaskiwin, Beiseker, Springbank, Coaldale, Barnwell, Milk River, Warner, Brooks, Raymond, Forestburg, Provost, St. Albert, Drumheller, Wainwright, Irvine, Wildhorse and Fort Saskatchewan.
- 1998, an isolated case of DED was found in Wainwright by STOPDED. This tree was promptly removed and properly disposed of.
- 1976 to 2004, AB Agriculture administrated and operated the Provincial DED Prevention Program.
- Since 2005, STOPDED has received a Government of Alberta funding grant to operate and administrate the Provincial DED Prevention Program. Agriculture and Rural Development, Sustainable Resource Development, Tourism, Parks and Recreation, and Municipal Affairs are the four government agencies that contribute to this grant.

3. Current DED and DED Vector Situation

- The **Dutch Elm Disease** (**DED**) **vectors** (Smaller European elm bark beetle, native elm bark beetle) **and the DED pathogens are declared pests** under the Provincial Agricultural Pest Act, administered by AARD. The Canadian Food Inspection Agency (CFIA) administers the Plant Protection Act (Canada) which regulates the movement of disease from DED infested to DED - free areas and between provinces.
- An "**Alberta DED Response Plan"** is in place.
- Alberta has a "**Provincial Elm Pruning Ban"** from April 1st to September 30th in place.
- **DED Public Awareness Week** is recognized annually province wide from June 24th to June 30th.
- **Manitoba -** DED is well established in the southern area of the province. It now extends throughout the entire natural range of elms in MB.
- **Saskatchewan -** DED is well established in the eastern area of the province. DED has effected high numbers of DED along the Fort Qu'Appelle River all the way to Buffalo Pound Park just north of Moose Jaw.
- Most municipalities in areas fighting the disease have a "**Prevention/Management Program**" in place.
- 1961, DED was discovered in **The City of Fredericton**. With a Prevention/Management Program put in place immediately, they have been able to sustained many of their elm trees. In 50 years they lost 20% of their elms, while communities that did nothing lost 95%.
- With an effective DED Prevention/Management program in place, the **City of Winnipeg's** elm losses averaged approx. 1.2%-2% annually or 2,900 trees per year since 1975. Even though there has been a loss of 60,000 trees in the last 35 years, the city's elm population is still 160,000.
- **DED Prevention and Management Program Annual Budget** in other municipalities/provinces:
    - City of Winnipeg 2011 DED program annual budget is 3.68 million, this includes 1 million from the province
    - Province of Manitoba is $1.5 million plus one full time person
    - Province of Saskatchewan is $100,000.00 plus one full time person
- DED is also found in Missoula, Billings, Great Falls and Sidney.
- Smaller European elm bark beetles are found in high numbers in British Columbia, but no DED has been found to date.
- Smaller European elm bark beetle are found in municipalities throughout Alberta.
- The **banded elm bark beetle (BEBB)** is a new DED vector, and has been found in Medicine Hat, Irvine, Coutts and Wildhorse in recent years. Over 600 BEBB have been captured Throughout the City of Medicine Hat this last season.
    - The BEBB has an ability to locate and colonize drought stressed trees and is able to produce up to three generations per year.
    - Its host range includes American, Siberian and Japanese elms, willows, Russian olive and some fruit trees.
    - BEBB has killed American elms through it feeding activities and gallery construction.
- As a result of vectors being found in Alberta, trapping locations and elm surveillance has been increased in those positive locations.
- Alberta is one of the last geographic areas in North America still DED free.

4. STOPDED Mandate and Goals

Members include federal, provincial and municipal government representatives, nurserymen, landscapers, commercial and municipal arborists, horticultural/ arboricultural students, research scientists and other interested Albertans. STOPDED members across the province take an active role in the prevention of DED.

2011 membership total - 41 individual and 52 corporate (corporate has 4 votes) and 170 associate. (2010 membership was 24 individuals and 35 corporate)

➢ **Mandate:** To foster and promote the survival of the American elm (*Ulmus americana*) in Alberta and the desire to protect Alberta's landscape trees threatened by pests with emphasis on invasive alien species

➢ **Objects** or Constitution of the Society registered August 17, 2010 with Alberta Corporate Registry:

1. To primarily foster and promote the survival of the American elm (*Ulmus Americana*) in Alberta by preventing the establishment of Dutch elm disease and its insect vectors.

2. To protect other Alberta landscape trees threatened by pests with emphasis on invasive alien species.

3. To advocate for the restriction of movement of pest carrying wood or firewood into and within Alberta.

4. To increase the awareness in the horticultural industry, in the general public, and in our governments of the immense value of our landscape trees, the value of our urban forests and of the possible insect and disease threats to them.

5. To assist and fund research on highly destructive landscape insect and disease pests.

6. To facilitate, for the public and for government agencies, the early detection of and rapid response to destructive invasive alien species that imperil landscape trees.

5. STOPDED Organization Accomplishments

A new board was elected at the April 2011 Annual General meeting. (**See appendix IV**). Since 2009, the following is a list organization accomplishments.

➢ Established a **new STOPDED Hotline** 1-877-837-ELMS.
➢ Has established a reliable system and infrastructure to survey for DED and monitor for DED vectors in Alberta.
➢ STOPDED Board adopted and instituted a **"Travel Policy"** and created an **"Expense Form"**. This has improved decision making and provides a paper trail for enhanced accountability.
➢ STOPDED engaged the SVS Group Accountants to **audit STOPDED's books and examine its accounting practices.** Several recommendations were made to improve STOPDED's accountability and transparency.
➢ STOPDED is now registered with the Federal Government for GST status as a non-profit organization and now receives and annual GST refund of approximately $3,500 per year.

- Bookkeeper has been hired to implement the SVS Group Accountants recommendation. STOPDED has moved to a "Project Based Accounting System" to allocate expenditures, based on project needs using a standard accounting program.
- STOPDED volunteers for a casino every 18 months. Funds raised are used for research and additional public awareness such as municipal DED signs, educational workshops and ads.
- Revised **STOPDED Bylaws** registered with AB Corporate Registry on Aug 17,2010.
- **STOPDED's minutes** have taken on a new look, making the issue of decision making and responsibilities obvious and transparent.
- STOPDED membership logo was designed and a **"Membership Logo Use Policy"** ratified by the board.
- **STOPDED website (www.stopded.org)** is housed under AAFD Ropin the Web. Items included on this web site are:
    - "Last Stand" education video which was funded by STOPDED and can be used to educate employers, employees, council members, students and the general public on DED and how it can be prevented.
    - Two You-Tube videos "Trap Instalment" and " Trap Removal and Return"
    - STOPDED Bylaws
    - STOPDED Objects
    - STOPDED Membership Logo Use Policy
    - Research project final reports
    - STOPDED adopted general minutes
- **Director Manuals** have been assembled to include board position responsibilities, contact information, business plan etc. This manual serves as a guide to help board members to understand their role in the provision of good governance.
- **STOPDED Board passed a motion granting an associate membership category** to include all Alberta Agriculture Fieldmen and their Assistants. The associate membership recognizes this ongoing working relationship that is necessary to strengthen the working relationship with "on-site" detection of DED.
- **STOPDED Board passed a motion granting students membership category.** Students can now purchase a membership at a lower fee. This will encourage students involvement
- **Research Committee established new terms of reference,** mandate, composition and membership. This STOPDED Board approved document outlines terms of office, frequency of meetings, reporting structure and specific functions. Two key functions include:
    1. make recommendations to the STOPDED Board of Directors regarding the merit and suitability research funding requests and project funding requests made to the Society.
    2. provide oversight to research and science-related projects undertaken by the Society to ensure quality and that the Society's interests are maintained.
- **Research Committee updated the STOPDED Research Funding Guidelines** that outlines eligibility, the application process, and specific requirements of those who are qualified to receive funding.
- **Research Committee established a STOPDED Research Work Plan** – Now that the Society is directly delivering research projects, the plan establishes the accountability for clearly identifying objectives, desired outcomes and performance measures (measures of success) for each phase of the anticipated project. It also establishes clear expectations of the direction and focus and accountability for the project.

- ➤ **Invasive Alien Species (IAS) Program** - STOPDED's insect collection from the 2007 - 2009 IAS Partnership Program funded by Environment Canada, was moved from a private residence to a public institution, Olds College. The large collection is now properly housed to ensure the long term storage. Dr. Ken Fry, Olds College, Entomology Instructor has made a commitment to provide 25 hours per year of expert scientific entomological support to assist with curation of material.
- ➤ **Memorandum of Understanding (MOU) between Olds College and STOPDED was signed at the April 2009 AGM at Olds College**. This relationship is expected to enhance both STOPDED and Olds College.
- ➤ **Four scholarships** have been put into place for four worthy Olds College horticultural and arboricultural students.

6. Integrated DED Prevention Program Components

In order to be successful a prevention program must have all the following components included. If one or more of the practices is reduced or eliminated, the overall program will significantly decrease in effectiveness.

a. **Monitoring for DED vectors**
   Smaller European elm bark beetle (SEEBB), native elm bark beetle (NEBB) and the banded elm bark beetle (BEBB)
   - o Provides vital information for DED detection.
   - o Monitoring for the three exotic insect vectors is carried out each year throughout the province to determine if the beetles are present.
   - o Pheromone baited sticky traps are used to monitor for the DED vectors.
   - o It is important to monitor for these three beetle species since they can carry spores of the DED fungus. As they move from breeding sites, such as DED-infected trees or firewood, to feed on healthy elm trees, DED can be spread.
   - o If one of these species are found in an area, surveillance of the disease and beetle monitoring locations are increased in that area.
   - o Number of traps placed in each municipality depends on location of the municipality, number of elms and if any insect vectors have been trapped in previous years. Approximately one trap is placed for every 500 trees. Traps are placed in some municipalities with less than 500 trees because of their location to borders etc.
   - o Beetle populations must be monitored using pheromone traps. Locations to be monitored are municipalities, recreational/campgrounds, Travel Alberta Information Centres, Alberta-Montana border crossings, and nurseries that sell elms.
b. **Surveillance of elm trees** for DED symptoms is done in locations where vectors have been found.
c. **Sampling** of suspicious elm trees.
d. **Public awareness** on the disease identification and prevention is essential since DED detection is dependent on the public.
e. **Train the trainer** to insure enforcement officers such as the Agricultural Fieldman and Custom Officials are informed.
f. **Provincial elm inventory** supplies the basic information necessary for an effective prevention program and identifies areas where intensive surveillance is necessary.

g. **Provincial and inter-provincial network** to maintain a liaison with all program partners and co-operators.
h. **Response plan and regulations** in place and updated as required.
i. **Elm firewood collection and disposal** is essential to insure DED vector infested elm firewood is not stored or transported within or into Alberta.
j. **Research** is supported to find resistant varieties of elm trees, and new control techniques until there is a cure for DED.

7. Provincial DED Prevention Program Accomplishments

a. **Monitoring for DED vectors** (SEEBB, NEBB and BEBB)
   Monitoring season runs from April 1st to September 30st.
   o A total of 1708 traps and lures are purchased by STOPDED and the larger cities to monitor for the DED vectors in municipalities, nurseries, parks and ports of entry province wide (**See appendix II)**
   - 117 Municipalities(cities, towns, villages, hamlets),
   - 31 - Nurseries
   - 30 - Parks (Provincial and Municipal)
   - 5 - US/Canada Port of Entry
   o STOPDED distributed 252 traps to 51municipalities, 5 ports of entry, 30 provincial parks**.** These traps are changed twice per season and scanned by Olds College students, supervised by instructor Dr. Ken Fry. **(See Table 1)**
   o The City of Edmonton, Calgary, Red Deer, Medicine Hat and Lethbridge, manage a total of 1058 traps to monitor 203 sites within their city limits. Traps are purchased by each city, changed monthly and scanned by city staff. **(See Table 2**)
   o The City of Edmonton, Calgary, Red Deer and Lethbridge are also responsible for distribution and scanning of traps in their buffer zone municipalities. By doing this, it increases the municipalities in the province monitored by 66. Traps for buffer zones are supplied by STOPDED and changed twice per season.

2011 Trapping results to date

2006 - BEBB found for the first time in City of Medicine Hat.
2009 - BEBB found in Irvine, Coutts, Wildhorse and again in Medicine Hat.
2010 – 54 BEBB found in Medicine Hat.
2011 – over 600 BEBB found throughout Medicine Hat

.
Table 1   Traps coordinated by STOPDED, inspected by Dr. Ken Fry

Target Species		Location	Trap Set May to July	Trap Set July to Sept	Total
SEEBB	*Scolytus multistriatus*	Taber	2		2
SEEBB	*Scolytus multistriatus*	Picture Butte	1		1
SEEBB	*Scolytus multistriatus*	Sylvan Lake	1		1
SEEBB	*Scolytus multistriatus*	Consort		1	1
SEEBB	*Scolytus multistriatus*	Lloydminster		1	1
BEBB	*Scolytus schevyrewi*	Dunmore		5	5

Table 2   Traps coordinated and inspected by larger cities, all EBB will be verified by Greg Pohl or Dr. Ken Fry.

Target Species		Location	Trap April	Trap mid-May to mid-June	Trap mid-June to mid-July	Trap mid-July to mid-August	Trap mid-Aug to mid Sept	Trap Mid Sept to mid Oct	Trap Oct	Total
BEBB	*Scolytus schevyrewi*	Edmonton		1						1
SEEBB	*Scolytus multistriatus*	St Albert						1		1
BEBB	*Scolytus schevyrewi*	Stony Plain			1					1
SEEBB	*Scolytus multistriatus*	Calgary				6				
SEEBB	*Scolytus multistriatus*	Lethbridge						3		3
BEBB	*Scolytus schevyrewi*	Lethbridge					1			1
SEEBB	*Scolytus multistriatus*	Red Deer				1				1
SEEBB	*Scolytus multistriatus*	Medicine Hat				4				4
BEBB	*Scolytus schevyrewi*	Medicine Hat						122	478	600
NEBB	*Hylurgopinus rufipes*									0

To date-number of Total EBB targets captured in 2011 traps provincial wide: 629

b**. Surveillance of elm trees**

Since beetles have been found in a number of municipalities throughout the years since 1996, a survey was conducted in municipalities in counties and MD's along the east and south side of the province this summer by Nigel Seymour. This is the first time this type of survey has been done although when the inventory was conducted in 1998, the crews were always looking for symptoms and the elm tree in Wainwright was found.

c. **DED suspect sampling**

Arrangements were made to have samples taken from all suspect DED elm trees samples by STOPDED. These were sent to Dr. J.P. Tewari, Professor Emeritus with University of Alberta for diagnosis. A total of 10 samples were cultured. All tested negative for DED. This service is paid by STOPDED.

d. **Public awareness**

STOPDED undertakes many initiatives to promote DED prevention among Alberta citizens and to visitors to Alberta. **(See appendix III)**

e. **Train the trainer**
   o   Contact was made with custom officials to insure that they understood the importance of collecting firewood
   o   e-Bulletins were sent out to Agriculture Fieldman regular on DED prevention.

f. **Provincial elm inventory** was completed in 1999 in all Alberta municipalities.

g. **Provincial and inter-provincial network**
   o   E-bulletins sent to British Columbia, Saskatchewan and Manitoba contacts.
   o   Communication is made via email and phone for regular pests updates.

h. **Response plan and Regulations**
   o   Response plan was written 1996
   o   First draft of the DED regulations has been written

i. **Elm firewood collection and disposal**
   o   As part of the STOPDED's invasive alien tree pests prevention, the Society maintains firewood collection bins at all US/AB ports of entry and at all Travel Alberta Information Centres. All firewood is confiscated at the US/AB ports whereas the bins at the information centres are volunteer bins. All bins were emptied and firewood disposed of by volunteers.

- o Travellers are requested to leave firewood in the bins in order to reduce the risk of importing insect vectors or disease through highway signage, ads placed in the Alberta Campground Guide and AMA SK, BC and AB Westworld magazines and posters and brochures placed in all Travel Alberta Information Centres and Border Custom offices.
  j. **Research**
  Using casino funds, STOPDED supports and funds research projects that support the objectives of the Society. All projects funded are reviewed and recommended by the Research Committee and approved by the Board.
    - o **"The fate of elm diseases during composting"** project conducted by the Edmonton Waste Management Centre of Excellence (Not for Profit Corporation) funded for two years, 2009 and 2010.
    - o Second year to fund the project "**Bionomics of the Banded Elm Bark Beetle and Implications for Dutch Elm Management"** by Dr. Neil Holliday (University of Manitoba)
    - o Second year to fund "**Surveillance of elm trees for DED and DED public awareness in municipalities along AB/SK border".** Final report found on www.stopded.org under "Research Projects Final Reports"
    - o The 2011 Invasive Alien Species survey was organized by STOPDED and conducted in Calgary, Edmonton, Grande Prairie, Lethbridge, Medicine Hat and Red Deer by city staff. STOPDED coordinated the project and CFIA supplied the traps and lures. All insects collected were sent to Olds College for curration.

8. Monitoring Invasive Alien Wood Boring Insects in AB Project

The establishment and expansion of the global marketplace has resulted in an increased risk of introduction to Canada of alien invasive species threatening our urban forests. A partnership has been developed between CFIA, Olds College and STOPDED that seeks to exploit the resources and capabilities of their respective organizations in pursuit of the protection of Alberta's trees. An alien invasive species monitoring program in Alberta has been established for the early detection of alien invasive species of wood boring insects.

This project builds on a pilot project conducted by STOPDED from 2007-2009 (Invasive Alien Species Partnership Program Project #1294) and contracted work by Olds College from 2010-2011. Protocols and methodologies have been established for trap deployment and collection, trap residue processing, and reporting. Cooperation between STOPDED, CFIA, and Olds College is integral to the project.

The results of this project will provide timely detection and notification of alien invasive species in support of a comprehensive stewardship effort by public and private sector stakeholders in Alberta and Canada, train students and workers in the field of horticulture to serve as resource personnel in urban forest management, contribute to the urban forest insect collection housed at Olds College, and provide extension services to the horticulture industry.

Fifteen trapping sites identified as highest risk introduction sites for alien invasive species will be monitored. The project will be coordinated by STOPDED, traps and lures supplied by CFIA and trap collections will be processed by Olds College under the supervision of Dr. Ken Fry. Trap set up will be coordinated by the following cooperators.
- City of Grande Prairie

- City of Lloydminster
- City of Edmonton
- City of Red Deer
- City of Calgary
- City of Lethbridge
- City of Medicine Hat
- City of Fort McMurray
- Town of Brooks
- AB Sustainable Resource Development - 4 northern locations still to be determined.

Curration has continued on the 2007-2009 Invasive Alien Insects collection housed at Olds College by Dr. Ken Fry and students. This collection was moved from a private residence to Olds College in 2010.

9. STOPDED Goals for the Future

➢ Continue to secure funding from Government agencies to operate a Provincial DED prevention program.
➢ Continue to source funding to support the alien invasive wood boring insect monitoring and prevention program.
➢ Continue to form partnerships so program prevention program components and projects can be done more efficiently and effectively.
➢ Improve monitoring program by:
  o Visiting municipalities that are having monitoring concerns.
➢ BEBB is a new vector of DED and has been found in larger number in Medicine Hat in 2010 and 2011. STOPDED will continue working with The City of Medicine and Agriculture Fieldman to develop a management plan and to increase awareness.
➢ Have more DED surveillance done in municipalities due the increase of EBB, especially the BEBB in the province.
➢ Hold workshops on DED and other invasive tree pests.
➢ Continue research effective methods of advertising.
➢ Update and rewrite DED Response Plan.
➢ Continue working with AARD Pest Surveillance Branch to include DED prevention/control measures in the Alberta Agricultural Pests Act Regulations.
➢ Complete a 2011-2015 STOPDED Strategic Plan to include goals and actions.
➢ Continue to encourage planting of elms throughout the province.

Appendix I - Provincial Monitored Locations

The following list indicates the number of trap sites in each location and the responsible party.

LEGEND:

CGY - Calgary	LB - Lethbridge
EDM - Edmonton	MH - Medicine Hat
SC - Strathcona County	RV- Rocky View MD#44
StC - Sturgeon County	
STOPDED	

Municipality	#Sites	Responsibility
AcadiaValley, M.D. of	1	STOPDED
Airdrie, City of	2	CGY
Ardrossan, Hamlet of	1	SC/EDM
Balzac, Hamlet of	1	CGY
Barnwell, Village of	1	LB
Barrhead, Town of	1	STOPDED
Barons, Village of	1	LB
Beaumont, Town of	1	EDM
Beiseker, Village of	1	RV/CGY
Bentley, Village of	1	RD
Bon Accord, Town of	1	EDM
Bonnyville, Town of	1	STOPDED
Bowden, Town of	1	RD
Bow Island, Town of	1	MH
Brooks, Town of	7	STOPDED
Bruderheim , Town of	1	SC/EDM
Calgary, City of	67	CGY
Calmar	1	EDM
Camrose, City of	3	STOPDED
Camrose, County of		
Round Hill, Hamlet of	1	STOPDED
New Norway, Hamlet of	1	STOPDED
Cardston, Town of	1	STOPDED
Castor, Town of	1	STOPDED
Cereal, Village of	1	STOPDED
Chauvin, Village of	1	STOPDED
Chestermer, Town of	1	CGY
Claresholm, Town of	2	STOPDED
Coaldale, Town of	2	LB
Coalhurst, Town of	2	LB
Conrich, Hamlet of	1	CGY
Consort, Town of	3	STOPDED
Coronation, Town of	2	STOPDED
Coutts, Village of	2	STOPDED
Dalroy, Hamlet of	1	RV/CGY
Daysland, Town of	1	STOPDED
Delburne, Village of	1	RD
Devon, Town of	2	EDM
Diamond Valley	1	LB
Drayton Valley, Town of	1	STOPDED
Drumheller, Town of	3	STOPDED
East Coulee, Hamlet of	1	STOPDED
Nacmine, Hamlet of	1	STOPDED
Rosedale, Hamlet of	1	STOPDED
Eckville, Town of	1	RD
Edgerton, Village of	1	STOPDED
Edmonton, City of	48	EDM
CDCN	1	STOPDED
Elnora, Village of	1	RD
Empress, Village of	2	STOPDED
Enchant, Village of	1	STOPDED
Forestburg, Village of	5	STOPDED
Fort Macleod, Town of	1	LB
Fort Saskatchewan, City of	6	EDM
Gibbons, Town of	1	EDM
Grande Prairie, City of	3	STOPDED
Grassy Lake, Hamlet of	1	MH
Hanna, Town of	2	STOPDED
High Prairie, Town of	2	STOPDED
High River, Town of	2	STOPDED
Innisfail, Town of	1	RD

Municipality	#Sites	Responsibility
Irvine, Village of	1	MH
Kathyrn, Hamlet of	1	RV/CGY
Keoma, Hamlet of	1	RV/CGY
Killam, Town of	2	STOPDED
Lacombe, Town of	3	RD
Langdon, Hamlet of	1	RV/CGY
Leduc, City of	3	EDM
Legal, Town of	1	SA/EDM
Lethbridge, City of	33	LB
Leth Correctional Centre	1	LB
Leth Research Centre	1	LB
Leth. Wilson Siding	1	LB
Lloydminster, City of	7	STOPDED
Magrath, Town of	1	LB
Medicine Hat, City of	36	MH
Milk River, Town of	2	STOPDED
Mirror, Village of	1	RD
Monarch, Hamlet of	1	LB
Morinville, Town of	1	EDM
Nanton, Town of	1	STOPDED
Nobleford, Village of	1	LB
Okotoks, Town of	2	CGY
Olds, Town of	1	STOPDED
One Four, Hamlet of	1	MH
Oyen, Town of	2	STOPDED
Picture Butte, Town of	1	LB
Pincher Creek, Town of	1	STOPDED
Ponoka, Town of	2	RD
Provost, Town of	2	STOPDED
Raymond, Town of	3	LB
Redcliff, Town of	1	MH
Red Deer, City of	19	RD
Redwater, Town of	2	EDM
Rimbey, Town of	1	RD
Sherwood Park	2	SC/EDM
Springbank, Hamlet of	1	RV/CGY
Springbrook, Hamlet of	1	RD
Spruce Grove, City of	2	EDM
St. Albert, City of	12	SA/EDM
Stettler, Town of	2	STOPDED
Stirling, Village of	1	LB
Stony Plain, Town of	3	EDM
Strathcona County	8	EDM
St. Paul, Town of	2	STOPDED
Strathmore, Town of	2	CGY
Suffield, Hamlet of	1	MH
Sylvan Lake, Town of	1	RD
Taber, Town of	5	LB
Three Hills, Town of	1	STOPDED
Trochu, Town of	1	STOPDED
Vauxhall, Town of	2	STOPDED
Vegreville, Town of	2	STOPDED
Vermilion, Town of	1	STOPDED
Veteran, Village of	1	STOPDED
Viking, Town of	1	STOPDED
Vulcan, Town of	1	STOPDED
Wainwright, Town of	4	STOPDED
Walsh Travel Info. Centre	1	MH
Warner, Town of	2	STOPDED
Wetaskiwin, City of	3	STOPDED
Youngstown, Village of	1	STOPDED

Nurseries	#Sites	Responsible
Alberta Tree Movers	1	CGY
Arrowhead Nurseries	1	EDM
Bluegrass Nurseries	1	CGY
Blue Grass Sod Farms	1	RD
Cheyenne Tree Nursery	1	EDM
Coaldale Nurseriers Ltd	1	LB
Economy Landscaping	1	StC/EDM
Foothills Landscaping	1	CGY
Golden Acre Garden Centre	1	MH
Golden Acre Garden Sentres	2	CGY
NE and Greengate		
Green Haven Tree Farm	1	LB
Greenland Nursery	1	EDM
Heritage Nurseries	1	StC/ED
Heritage Tree Nurseries	1	CGY
Lacombe Tree Farms	1	RD
Millcreek Nursery	1	EDM
Old Man Creek	1	EDM
Parkland Nurseries	1	RD
Pireira and Monez Landscaping	1	StC/EDM
Poplar Ridge Tree Farm	1	RD
Salisbury Greenhouses	1	SC/EDM
Simon Bos Nurseries Ltd.	1	LB
Spruce Lanes	1	CGY
Sunnyside Greenhouses Ltd.	1	CGY
Sunshine Tree Nursery	1	StC/EDM
Sunstar Nurseries	1	EDM
Tom's Tree Farm	1	EDM
Vollmin Tree Movers	1	CGY
West Edmonton Treeland	1	EDM
William Holt Nurseries	1	CGY
Windmill Garden Centre	1	MH

Parks	#Sites	Responsible
Aspen Beach PP	3	STOPDED
Big Knife PP	1	STOPDED
Buffalo Lake PP	1	STOPDED
Dillberry PP	1	STOPDED
Dinosaur PP	1	STOPDED
Dixon-Stevenson Rest Stop	1	RV/CGY
Elkwater Cabin Area	1	STOPDED
Gooseberry Lake PP	1	STOPDED
Half Moon Lake Resort	1	SC/EDM
Island Buffalo Jump PP	1	STOPDED
Jarvais Bay PP	1	RD
Kinbrook PP	1	STOPDED
Lac Ste. Anne County		
Meyerthorpe Campground	1	STOPDED
Little Bow PP	1	STOPDED
Little Fish PP	1	STOPDED
Midland PP	1	STOPDED
Pine Lake PP	1	RD
Parkland PP	1	RD
Reesor Lake PP		STOPDED
Rochan Sands PP	1	STOPDED
Sherwood Forest Campground	1	SC/EDM
St. Mary Reservoir	1	STOPDED
Strathcona Science PP	1	SC/EDM
Taber PP	1	LB
Tillibrook PP	1	STOPDED
The Narrows PP	1	STOPDED
Tolman Bridge PRA	1	STOPDED
Vermillion PP	1	STOPDED

Port of Entry	#Sites	Responsible
Chief Mountain	1	STOPDED
Carway	1	STOPDED
Coutts	1	STOPDED
Del Bonita	1	STOPDED
Wild Horse	1	STOPDED

Appendix II – Public Awareness

- ➤ **Advertisements focus on Elm Firewood and Elm Pruning Recommendations**
  - o **2011 LANDX**, Industry resource guide with a target distribution of 1000 in AB, BC, and SK.
  - o **Alberta Association of Landscape Architects 2011 Membership Roster,** distributed directly to the leaders and decision makers involved in Alberta's landscape architect industry.
  - o **Westworld AMA Alberta** Summer Distribution is 523,094
  - o **Westworld BCAA British Columbia** Summer Distribution is 531,000
  - o **Westworld CAA Saskatchewan** Distribution is 115,389.
  - o **Alberta Campground Official 2011 Guide** a primary reference for vacationing travelers. 250,000 copies are distributed locally, nationally and internationally. Estimated 750,000 campers and families utilizing the Guide. Lists more than 650 campgrounds around the province.
  - o **Alberta Guide to Sportsfishing Regulations 2011,** Official guide for Alberta. Distribution 310,000
  - o **Alberta Guide to Hunting Regulations 2011,** Official guide for Alberta. Distribution 200,000
  - o **Alberta Outdoorsmen** 10,000 copies are distributed through sporting goods stores, major chains, newsstands across Alberta and to subscribers.
  - o **Prairie Landscape Magazine** April/May, June/July, Aug/Sept and Oct/Nov. Nursery resource Guide in AB, BC, SK and MB. Distribution 2000
  - o **Alberta Gardener S**pring issue. 5000 gardener subscribers.
  - o **Western Amateur Sports Paper"** summer edition. Distributed in Edmonton, Calgary, Red Deer, Grande Prairie, Lethbridge, Medicine Hat, Lloydminster, Banff and Jasper at Safeways, McDonald's Restaurants, Sports Pubs, local arenas and Rec&Fitness Facilities. Circulation 20,000.
  - o **Alberta Native News** This magazine is distributed to 14,000 families in all the First Nations, Metis Settlements and Friendship Centres.
  - o **The Prairie Arborist** Issue 1, 2 and 3. ISA Prairie Chapter newsletter for professional arborists, suppliers of arboriculture equipment, suppliers of arboricultural services, municipal arborists, parks administrators, arborist educators and trainers. 300 subscribers .
  - o **Western Canadian Game Warden** Summer issue. Distributed throughout all western provinces and in the USA. Circulation 6000
  - o **Western Amateur Sports Paper"** Spring and summer editions. Distributed in Edmonton, Calgary, Red Deer, Grande Prairie, Lehtbridge, Medicine Hat, Lloydminster, Banff and Jasper at Safeways, McDonalds Restaurants, Sports Pubs, Local arenas and Rec&Fitness Facilities. Circulation 20,000.
  - o **Grand Parent Magazine** May/June. Distribution is over 70,000 copies to leading grocery stores such as Safeway, Hudson Bay Company, newsstands, medicentres, family recreational facilities, health service providers and all public libraries.
- ➤ **Magazine and News Articles**.
  - o **Grand Parent Magazine** May/June. " DED- STOP a killer from entering Alberta" Distribution is over 70,000 copies to leading grocery stores such as Safeway, Hudson Bay Company, newsstands, medicentres, family recreational facilities, health service providers and all public libraries.
  - o **Prairie Landscape Magazine** Dec/Jan 2012 "Elm-Pruning Ban in Alberta is Now Over"

- o **The Prairie Arborist**
- o Articles placed in **Agri-News** are picked up by local papers across the province.
  - March 29 – Alberta Elm Pruning Ban
  - May 3 - Protecting Alberta
  - July -12- Check Elm Trees for Dutch Elm Disease Symptoms
  - Sept 27 - International Society of Arboriculture 2010 Prairie Chapter Conference
  - Oct 18- Alberta's Elm-Pruning Ban is Over
  - Oct 25 - Tree Tips for Fall

➢ **STOPDED E-Bulletin's**

As part of the ongoing efforts to keep members informed on DED and other related pest issues and information E-Bulletin's are regularly sent out.

➢ **STOPDED Display**

Updated STOPDED display

➢ **Posters and brochures**
- o Developed a new brochure focused on the BEBB and control for the City of Medicine Hat to send out with their utility bill.
- o Brochures and posters were sent to Municipalities and Provincial contacts to be placed in Municipal/Provincial campgrounds, provincial ports of entry and Travel information centres.

➢ **Conferences/Tradeshows**
- o **Alberta's Emerald Ash Borer Forum**, Edmonton. Attended and supplied promotional material to all delegates. Feb 16
- o **Early Detection of EAB Using Branch Sampling Workshop,** Red Deer. March 7
- o **Pest Surveillance Update**, Red Deer. Attended March 16
- o **IVMAA Conference/Tradeshow, Calgary** - manned STOPDED booth. March 1-3
- o **IAS Workshop, SRD Sharing Forum**, Edmonton. April 28
- o **Oldman Watershed** Council, Lethbridge, Urban Forestry Booth included STOPDED information, June 6
- o **ISA Annual Conference**, Winnipeg, supplied promotional material for delegates.
- o **Forest Pest Forum,** Edmonton November 3
- o **Green Industry Trade Show & Conference**, Edmonton –manned STOPDED booth. Nov 17&18
- o **ISA workshop**, Edmonton, Distributed promotional material to all delegates. Set up display in workshop room. Also co-sponsored the workshop. Nov 17

➢ **STOPDED Hotline – 1-877-837-ELMS (3567)**
- o 249 calls with concerns and questions ranging from information on the DED Response Plan, Agricultural Pests Act, Plant Protection Act of Canada, storm damage, pruning ban, proper disposal, proper tree care and DED symptoms.

➢ **STOPDED Website**

AARD Ropin the Web **DED website** updated when needed by AAFD.

➢ **STOPDED Information Material**
- o Decals, note pads, and business cards were handed out at tradeshows.
- o STOPDED display updated with a new firewood information panel.
- o **Accredited Community and Regional Visitors Information Centres** and **Travel Alberta Visitor Information Centres** were contacted and sent brochures, posters and DVD. These Centres are located in Brooks, Brazeau, Camrose, Devon, Cochrane, Cold Lake, Fort McMurray, Grande Cache, Lac La Biche, Leduc, Millet, and Pincher Creek, Rocky Mountain House, Slave Lake, Falher, Stettler, High River,

Vulcan, Westlock, Whitecourt. Canmore, Crowsnest Pass, Grande Prairie, Field, Hinton, Lloyminster, Milk River, Oyen, Walsh, and West Glacier. All were contacted several times through the summer to check their brochure supply.

- ➢ **Firewood Trailer used to dispose of wood collected at Alberta/Montana Ports of Entry**
  Trailer was repainted and place on each side a 4'x 4' aluminum DED municipal signs which includes the STOPDED hotline. This trailer is parked at Chief Mountain Port of Entry and used by Phil Merrill, AARD Inspector to empty and dispose of wood collected in the bins at Coutts, DeBonita, Carway Ports of Entry.

Appendix III - Board

Board

Chair:	Milton Davies Arbor-Pro Tree Consulting Ltd. (Consultant) Edmonton
Vice Chair	Dr. Ieuan Evans Agri Trends (Consultant) Spruce Grove
Secretary	Jacqueline Powell Red Deer Regional Hospital (Certified Arborist &Utility Specialist) Red Deer
Treasurer	Elaine Johnson City of Red Deer (Urban Forester) Red Deer
Director North	Michael Jenkins City of Edmonton (Biological Technician) Edmonton
Director Central	Mimi Cole Arborist Rocky Mountain House
Director South	Gary Patzer City of Medicine Hat (Urban Forester) Medicine Hat

Research Committee

Dr. Jim Calpas
Elaine Johnson
Mike Jenkins
Lindsay Bell

Executive Director   Janet Feddes-Calpas