

# Part IV. Plant Assessment Form

For use with "Criteria for Categorizing Invasive Non-Native Plants that Threaten Wildlands"  
by the California Exotic Pest Plant Council and the Southwest Vegetation Management Association

**Table 1. Species and Evaluator Information**

<b>Species name</b> (Latin binomial):	Tanacetum vulgare L.
<b>Synonyms:</b>	
<b>Common names:</b>	common tansy, golden buttons, garden tansy
<b>Evaluation date</b> (mm/dd/yy):	04/14/2004
<b>Evaluator #1 Name/Title:</b>	Rob Wilson
<b>Affiliation:</b>	UCCE
<b>Phone numbers:</b>	530-251-8132
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<b>Address:</b>	707 Nevada St. Susanville, CA 96130
<b>Evaluator #2 Name/Title:</b>	enter text here
<b>Affiliation:</b>	enter text here
<b>Phone numbers:</b>	enter text here
<b>Email address:</b>	enter text here
<b>Address:</b>	enter text here

Section below for list committee use—please leave blank

<b>List committee members:</b>	Carla Bossard, Alison Stanton, Cynthia Roye, Joe DiTomaso, Peter Warner
<b>Committee review date:</b>	May 14, 2004
<b>List date:</b>	enter text here
<b>Re-evaluation date(s):</b>	enter text here

**Table 2. Criteria, Section, and Overall Scores**

1.1	Impact on abiotic ecosystem processes	<b>U</b>	<b>No Information</b>
1.2	Impact on plant community	<b>B</b>	<b>Rev'd, Sci. Pub'n</b>
1.3	Impact on higher trophic levels	<b>B</b>	<b>Other Pub. Mat'l</b>
1.4	Impact on genetic integrity	<b>D</b>	<b>Observational</b>

**“Impact”**  
 Enter four characters from Q1.1-1.4 below:  
**UBBU**  
 Use matrix determine the score; enter below:  
**B**

2.1	Role of anthropogenic and natural disturbance	<b>B 2</b>	<b>Rev'd, Sci. Pub'n</b>
2.2	Local rate of spread with no management	<b>B 2</b>	<b>Other Pub. Mat'l</b>
2.3	Recent trend in total area infested within state	<b>C 1</b>	<b>Observational</b>
2.4	Innate reproductive potential	<b>A 3</b>	<b>Other Pub. Mat'l</b>
2.5	Potential for human-caused dispersal	<b>B 2</b>	<b>Other Pub. Mat'l</b>
2.6	Potential for natural long-distance dispersal	<b>B 2</b>	<b>Other Pub. Mat'l</b>
2.7	Other regions invaded	<b>B 2</b>	<b>Anecdotal</b>

**“Invasiveness”**  
 For questions at left, recall that an A gets 3 points, a B gets 2, a C gets 1, and a D or U gets=0. Enter the sum total of all points for Q2.1-2.7 below:  
**14**  
 Use matrix to determine score and enter below:  
**B**

**“Plant Score”**  
 Using matrix, determine the Overall Score and Alert Status from the three section scores and enter them below:  
**Medium**  
**No Alert**

3.1	Ecological amplitude	<b>A</b>	<b>Anecdotal</b>
3.2	Distribution	<b>D</b>	<b>Anecdotal</b>

**“Distribution”**  
 Use matrix determine the score; enter below:  
**B**

**Table 3. Documentation**

<b>Question 1.1</b> Impact on abiotic ecosystem processes
Identify ecosystem processes impacted: There is very little information available on common tansy effects on abiotic ecosystem processes.
Rationale: enter text here
Sources of information: LeCain, Ron and Sheley, Roger. 2002. Common Tansy (Tanacetum vulgare). MontGuide fact sheet #9911. Montana State University Extension Service
<b>Question 1.2</b> Impact on plant community composition, structure, and interactions
Identify type of impact or alteration: Common tansy is commonly found along roads, fences, streambanks, waste areas, and pastures. Because it is unpalatable to most livestock species, it is a rapid increaser in pastures. In meadows and mountain stream/river valleys common tansy often forms dense stands. Common tansy has also been documented to invade and form dense stands in disturbed areas. In Central Europe, common tansy is known as a highly competitive and aggressive plant which often forms dominant stands. It is capable of colonizing disturbed sites and becoming dominant in early to mid-successional stages. The clonal species is known to have a growth strategy where the main population expands as a thick cluster of stems (phalanx system of spread).
Rationale: enter text here
Sources of information: LeCain, Ron and Sheley, Roger. 2002. Common Tansy (Tanacetum vulgare). MontGuide fact sheet #9911. Montana State University Extension Service  Rebele, Franz. 2000. Competition and coexistence of rhizomatous perennial plants along a nutrient gradient. Plant Ecology 147: 77-94
<b>Question 1.3</b> Impact on higher trophic levels
Identify type of impact or alteration: Common tansy produces alkaloids and volatile oils that can be toxic at high doses to both humans and livestock. Common tansy oils can also cause skin irritation and allergic reactions in humans. Common tansy oils have also been shown to have insect repellent properties. Distilled oil has been shown to deter mosquitoes, whiteflies, and Colorado potato beetle. These results suggest common tansy may deter some native insects and wildlife from visiting native plants found within infested areas, although bees and other insects also have been documented to pollinate common tansy.
Rationale: enter text here
Sources of information: LeCain, Ron and Sheley, Roger. 2002. Common Tansy (Tanacetum vulgare). MontGuide fact sheet #9911. Montana State University Extension Service  Hough-Goldstein, J.A. 1990. Antifeedant effects of common herbs on the Colorado potato beetle. Environ-Entomol. Entomological Society of America. V. 19, p. 234-238

<b>Question 1.4</b> Impact on genetic integrity
Identify impacts: Unknown
Rationale: There is one native species of Tanacetum in California
Sources of information: Calflora; Jepson Manual 1993
<b>Question 2.1</b> Role of anthropogenic and natural disturbance in establishment
Describe role of disturbance: Common tansy can spread by seeds and rhizomes. It has a phalanx growth strategy. Since common tansy often infests natural areas that lack a lot of human disturbance, natural disturbances may play a significant role in the spread of common tansy. The seed can be moved small distances by wind. Common tansy often spreads along fence lines, so birds and livestock may move seed. Common tansy often spreads along waterways. Since seeds have been documented to move in ballast water, seed probably float and spread along waterways.
Rationale: enter text here
Sources of information: LeCain, Ron and Sheley, Roger. 2002. Common Tansy (Tanacetum vulgare). MontGuide fact sheet #9911. Montana State University Extension Service
<b>Question 2.2</b> Local rate of spread with no management
Describe rate of spread: Unknown to author. In Plumas County, common tansy populations have become dense and spread along mountain valleys and/or meadows. In Montana and western Canadian provinces common tansy has been documented to spread rapidly in disturbed areas.
Rationale: enter text here
Sources of information: LeCain, Ron and Sheley, Roger. 2002. Common Tansy (Tanacetum vulgare). MontGuide fact sheet #9911. Montana State University Extension Service Personal communication with Carl Bishop, Plumas CDFA Ag. Commissioner
<b>Question 2.3</b> Recent trend in total area infested within state
Describe trend: unknown to author, has not appeared to spread much in California despite being much more common in other states.
Rationale: enter text here
Sources of information: DiTomaso, J.M. (ditomaso@vegmail.ucdavis.edu), observational

**Question 2.4** Innate reproductive potential

Describe key reproductive characteristics: Common tansy is a perennial that reproduces by seed and rhizomes. Common tansy plants often form dense clumps of stems that produce numerous disc flowers during mid-summer.

Rationale: enter text here

Sources of information: LeCain, Ron and Sheley, Roger. 2002. Common Tansy (Tanacetum vulgare). MontGuide fact sheet #9911. Montana State University Extension Service

Rebele, Franz. 2000. Competition and coexistence of rhizomatous perennial plants along a nutrient gradient. Plant Ecology 147: 77-94

**Question 2.5** Potential for human-caused dispersal

Identify dispersal mechanisms: Common tansy is sometimes planted as an ornamental and/or herb. Common tansy often spread along roads. It can be transported by moving soil with root parts and can be moved with livestock. Common tansy has been shown to move in ballast water and also in contaminated crop seed.

Rationale: enter text here

Sources of information: LeCain, Ron and Sheley, Roger. 2002. Common Tansy (Tanacetum vulgare). MontGuide fact sheet #9911. Montana State University Extension Service

Rebele, Franz. 2000. Competition and coexistence of rhizomatous perennial plants along a nutrient gradient. Plant Ecology 147: 77-94

**Question 2.6** Potential for natural long-distance dispersal

Identify dispersal mechanisms: Seed can move in water along streams and rivers. Seed is probably moved by birds and rodents.

Rationale: enter text here

Sources of information: LeCain, Ron and Sheley, Roger. 2002. Common Tansy (Tanacetum vulgare). MontGuide fact sheet #9911. Montana State University Extension Service

Rebele, Franz. 2000. Competition and coexistence of rhizomatous perennial plants along a nutrient gradient. Plant Ecology 147: 77-94

**Question 2.7** Other regions invaded

Identify other regions: Common tansy is reported as a problem throughout the temperate regions of North America. Common tansy tolerates a wide range of precipitation and temperature zones, giving it the potential to occupy every county in Montana.

Rationale: enter text here

Sources of information: LeCain, Ron and Sheley, Roger. 2002. Common Tansy (*Tanacetum vulgare*). MontGuide fact sheet #9911. Montana State University Extension Service

Rebele, Franz. 2000. Competition and coexistence of rhizomatous perennial plants along a nutrient gradient. *Plant Ecology* 147: 77-94

**Question 3.1** Ecological amplitude

Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Little information available on California Distribution. Common tansy has been documented in 12 CA counties primarily in Northern California. In Plumas County, common tansy is commonly found within stream and river valleys and within meadows. It is often found in natural conditions.

Rationale: enter text here

Sources of information: Calflora and personal communication with Carl Bishop , Plumas CDFA Ag. Commissioner

**Question 3.2** Distribution

Describe distribution: Unknown to author, although populations are unlikely to cover more than 5% of any ecological type.

Rationale: enter text here

Sources of information: enter text here

## Worksheet A

Complete this worksheet to answer Question 2.4.

Reaches reproductive maturity in 2 years or less	<b>Yes: 1 pt</b>
Dense infestations produce >1,000 viable seed per square meter	<b>Yes: 2 pts</b>
Populations of this species produce seeds every year.	<b>Yes: 1 pt</b>
Seed production sustained over 3 or more months within a population annually	<b>Unknown: 0 pts</b>
Seeds remain viable in soil for three or more years	<b>Unknown: 0 pts</b>
Viable seed produced with <i>both</i> self-pollination and cross-pollination	<b>Unknown: 0 pts</b>
Has quickly spreading vegetative structures (rhizomes, roots, etc.) that may root at nodes	<b>Yes: 1 pt</b>
Fragments easily and fragments can become established elsewhere	<b>Unknown: 0 pts</b>
Resprouts readily when cut, grazed, or burned	<b>Yes: 1 pt</b>
	<b>6 pts      4 unknowns</b>
	<b>A (6+ pts)</b>
<b>Note any related traits:</b> enter text here	

## Worksheet C - California Ecological Types

(*sensu* Holland 1986)

Major Ecological Types	Minor Ecological Types	Code*
<b>Marine Systems</b>	marine systems	score
<b>Freshwater and Estuarine Aquatic Systems</b>	lakes, ponds, reservoirs	score
	rivers, streams, canals	score
	estuaries	score
<b>Dunes</b>	coastal	score
	desert	score
	interior	score
<b>Scrub and Chaparral</b>	coastal bluff scrub	score
	coastal scrub	score
	Sonoran desert scrub	score
	Mojavean desert scrub (incl. Joshua tree woodland)	score
	Great Basin scrub	score
	chenopod scrub	score
	montane dwarf scrub	score
	Upper Sonoran subshrub scrub	score
<b>Grasslands, Vernal Pools, Meadows, and other Herb Communities</b>	coastal prairie	score
	valley and foothill grassland	score
	Great Basin grassland	score
	vernal pool	score
	meadow and seep	D. presen
	alkali playa	score
	pebble plain	score
<b>Bog and Marsh</b>	bog and fen	score
	marsh and swamp	score
<b>Riparian and Bottomland</b>	riparian forest	D. presen
	riparian woodland	D. presen
	riparian scrub (incl. desert washes)	score
<b>Woodland</b>	cismontane woodland	score
	piñon and juniper woodland	score
	Sonoran thorn woodland	score
<b>Forest</b>	broadleaved upland forest	score
	North Coast coniferous forest	D. presen
	closed cone coniferous forest	score
	lower montane coniferous forest	D. presen
	upper montane coniferous forest	score
	subalpine coniferous forest	score
<b>Alpine Habitats</b>	alpine boulder and rock field	score
	alpine dwarf scrub	score

\* A. means >50% of type occurrences are invaded; B means >20% to 50%; C. means >5% to 20%; D. means present but ≤5%; U. means unknown (unable to estimate percentage of occurrences invaded).