

# Designated invasive alien species, lanceleaf coreopsis (*Coreopsis lanceolata*) removal and control manual

MATSUE Masahiko, Head OGURI Hitomi, Senior Researcher  
 HATASE Yoriko, Visiting Researcher  
 Landscape and Ecology Division, Environment Department

(Key words) Designated invasive alien species, lanceleaf coreopsis (*Coreopsis lanceolata*), removal

## 1. Background to the preparation of the manual

Lanceleaf coreopsis (*Coreopsis lanceolata*) was designated an invasive alien species in February 2006, placing restrictions on its cultivation, storage, transport, import, etc., and requiring that it be exterminated whenever considered necessary. Attempts are being made to exterminate it from rivers and roads with the cooperation of residents, but lanceleaf coreopsis (Photo 1), a perennial herb of the composite family originating in North America, is extremely fertile. Many seeds are fructified and fall to the ground where large numbers of the seeds sprout. It is plant with a powerful constitution; any which survive control activities quickly recover. For these reasons, the effects of control efforts are insufficient.

Very little research on lanceleaf coreopsis has been done in Japan, so it is necessary to collect more information to develop effective methods of controlling it.

Since 2006, three methods, uprooting, cutting, and topsoil removal, have been used for a vegetation control experiment in Kasada Park at the government operated Kisosansen Park Center, verifying the control method and its effectiveness. The Removal and Control Manual was prepared based on knowledge obtained as a result of this experiment.

## 2. Outline of the Lanceleaf Coreopsis Removal and Control Manual

To consider a control method, it is necessary to set achievable goals based on a clear understanding of present circumstances. To do so, it is important to decide what kinds of vegetation to aim for after exterminating the lanceleaf coreopsis. After this goal has been set, a management method adapted to achieve it is selected and implemented at the site. Then it is important to clarify effectiveness through monitoring, and when it is impossible to confirm sufficient effectiveness, the goal and method must be revised.

Figure 1 is the removal and control flow chart. The manual presents the goal setting concept, management method and its effectiveness, method of selecting the control method according to the goal, method of performing the management work, and implementation precautions. As stated above, lanceleaf coreopsis possesses powerful resilience, requiring years of continued control until it is completely exterminated. And measures are necessary to prevent it from returning after it has been removed. The manual is counted on to support measures to defeat the lanceleaf coreopsis in the field.



Photo 1. Flowering lanceleaf coreopsis (top) and fallen seeds (bottom)

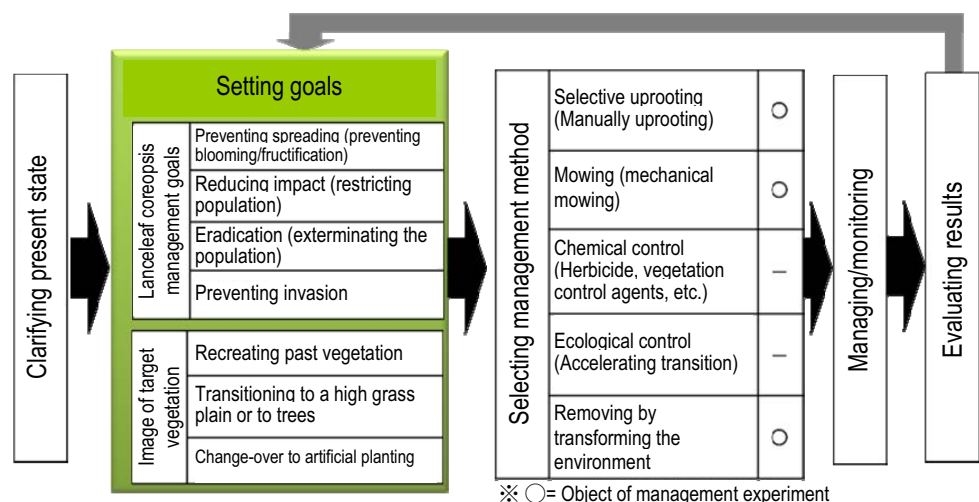


Figure 1. Setting Lanceleaf Coreopsis Management Goals and Management Methods