

## Using Google Trends for Search Engine Optimization of Extension Internet Content

### Abstract

Google Trends can be a useful tool for Extension professionals in determining online interest in search terms. By knowing this information, online Extension content can be tailored to attract increased Internet traffic from search engines. An example comparison of 'cattle nutrition' and similar search terms shows widely varying search interest amongst these terms in the United States from 2011 through 2014. Differences in search term popularity among locations and over time are also worth noting. This demonstrates the importance of making informed wording choices that consider search engine optimization when preparing Extension content for online distribution.

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## Introduction

The Internet is a communication medium capable of transcending time and distance constraints on information delivery from Extension. The widespread and increasing use of the Internet in the United States provides the potential for Extension to reach a large audience. Case in point, the percent of households in the United States using the Internet in 2010 was 80.23% (National Telecommunications and Information Administration, 2011). Likewise, the percent of farms in the United States with Internet access reached 62% in 2011, up from 57% in 2007 and continuing a steady rise over time (National Agricultural Statistics Service, 2011).

Providing good website content is not enough for Extension. Internet users must be able to readily find this content in order to be exposed to it. Rader (2011) noted that Google Trends could identify popular Internet search terms used by clientele and that strategic use of keywords could improve Extension website rankings within Google Search. Hill, Rader, and Hino (2012) also emphasized the importance of search engine optimization to drive Internet traffic to Extension websites. This article explores the use of Google Trends to identify appropriate keywords to drive traffic to online Extension resources.

## Search Engine Optimization

Search engines such as Google use algorithms to assess hundreds of factors in determining rankings within their search results. Search engine optimization involves efforts to improve a website's ranking within search engine results. Palmer (2006) previously described the use of keywords, content, and meta tags to make Extension websites more search engine friendly. Briefly, keywords are single words or multi-word phrases used in Internet searches, and meta tags are part of the webpage code to describe the contents of the webpage. Keywords appearing within title meta tags, and webpage headers may improve search engine ranking of that webpage in a search for these keywords.

### Similar Search Terms May Generate Different Internet Traffic Volume

The selection of terminology appearing in webpage content and meta tags affects Internet traffic to individual webpages. As an example of this, Google Trends was used to review the search term "cattle feed" and comparable terms for the period from January 2011 to December 2014. This direct comparison of online search interests in the United States for these similar phrases reveals that the search term "cattle feed" generated:

- 3 times as much search interest as "cattle feeding,"
- 9 times as much search interest as "cattle nutrition,"
- 13 times as much search interest as "cattle diet," and
- 40 times as much search interest as "cattle ration."

Also of interest, "cow nutrition" and "cow diet" each generated more online search traffic than "cattle nutrition" and "cattle diet," respectively. However, "cattle" outranked "cow" when included in keyword phrases with "feed," "feeding," and "ration."

### Use Google Trends to Analyze Search Term Interest by Location

Additionally, search interest may vary by geography. It is important to define appropriate locations when using Google Trends to best match results to the target audience. Google Trends can report results on a worldwide basis or narrow results further to specific country, state, metropolitan area, and city levels. Search volume for a specific search term in a defined geography must meet minimum thresholds for Google Trends to show results.

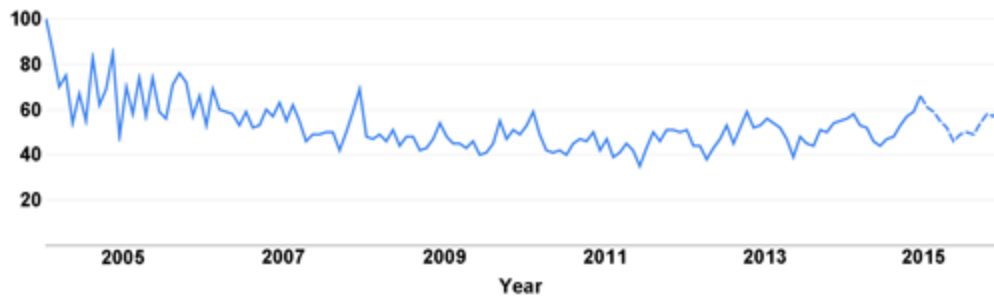
### Choose Keywords That Are Popular Now and in the Future

Keyword traffic changes over time. Seasonal and long-term trends can be seen using Google Trends. Figure 1 illustrates the past and projected future search interest in the United States in "cattle feed" as a keyword in Google searches. The most recent interest in this keyword has been relatively stable, as is the future outlook for interest in it. In selecting keywords for use in sponsored searches or

incorporating into website content and meta tags, the future interest becomes important. A popular term in the past may be better replaced by a term with adequate current search volume and experiencing rising search interest.

**Figure 1.**

Google Trends Search Interest over Time in the United States for "Cattle Feed" as a Keyword<sup>1</sup>



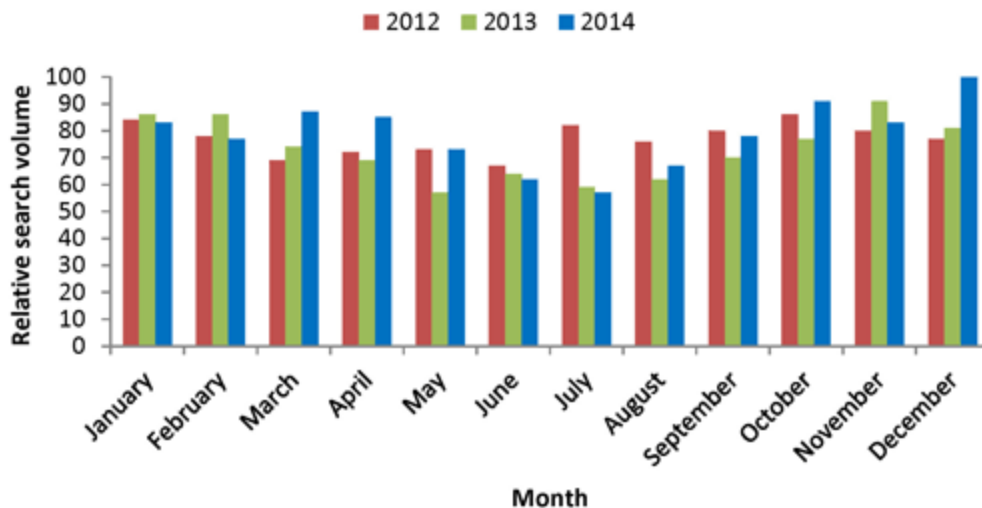
<sup>1</sup>The number 100 on the vertical axis represents the peak search interest. The solid line represents historical data, and the dashed line represented projected data.

A handy aspect of using Google Trends to evaluate search terms is that it gives suggestions for the top related searches. For example "feed for cattle" was listed as the top related query for "cattle feed." Google Trends also provides related search terms that are currently rising in popularity. In this case "cattle feed prices" was the top suggestion in the rising related searches category.

An interesting seasonal trend for the search term "cattle feed" is that search interest typically wanes in the summer months relative to other times of the year, as shown in Figure 2. This makes sense because the bulk of cattle feed supplementation generally occurs during the winter months. Knowledge of seasonal interest changes in search terms can be used to advantageously time posting of online Extension content to attract web traffic.

**Figure 2.**

Google Trends Seasonal Search Interest in the United States for "Cattle Feed" as a Keyword<sup>1</sup>



<sup>1</sup>The number 100 on the vertical axis represents the peak search interest.

## Conclusions

The Internet is a logical medium for Extension to connect to its clientele. In addition to selecting popular keywords for meta tags, website content and online Extension documents, such as portable document format Extension factsheets files, should incorporate terms that will generate Internet traffic to those educational resources. Recent and projected trends for online searches can provide insight for word and phrase selection in developing online Extension resources.

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