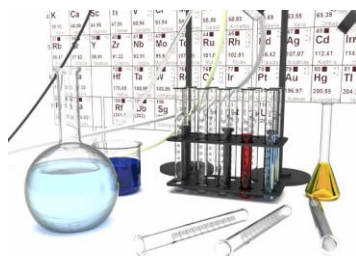


## Clostridium Statistics

Total number of autogenous bacterin orders containing Clostridium isolate(s) from Gallant Custom Laboratories.

	2007	2008
Number of swine clients ordering Clostridium bacterins	7	40
Containing <i>Clostridium difficile</i> and <i>Clostridium perfringens</i>	0	6
Containing <i>Clostridium perfringens</i> with alpha and Beta 2 toxin	Unknown	40

Gallant tests all swine *Clostridium perfringens* production lots for presence of alpha and beta 2 toxin regardless of whether the isolate has been genotyped. Generally the isolates are screened for the presence of the alpha and beta 2 toxin genes for selection as a candidate for bacterin production. If the isolate is negative for the beta 2 toxin gene it is not recommended for use as a bacterin strain. Therefore, 100% of the strains



used in swine bacterin production are positive for both alpha and beta 2 toxins at our lab. This can either be tested prior to production using PCR genotyping or after production using a dot blot assay to detect the presence of the toxins in the culture. Bacterins are used to vaccinate sows and gilts pre-farrowing. Currently we are making bacterins for clients in Alberta, Saskatchewan, Manitoba, Ontario, Quebec and the Maritimes. We are seeing an sharp increase in the use of Clostridial bacterins for pre-farrowing vaccination.

### Diagnostic Cases

In 2008 our lab handled 49 swine enteric cases that screened for Clostridium or were Clostridium isolates received from other labs for bacterin production. Of these 49 cases, 46 were positive for *Clostridium perfringens*. Of these 46 cases 13 were genotyped against the 5 *Clostridium perfringens* types (A, B, C, D, and E) either by our lab or another lab. Of the strains that were genotyped from swine, only 1 (one) was Clostridium perfringens type A with alpha toxin but negative to beta 2 toxin. However, as mentioned above, if it was used for an autogenous bacterin the presence of alpha and beta 2 toxins were checked during production and all swine isolates were positive to both alpha and beta 2 toxin.